Au 8/982-85

corrected copy

Bureau of Land Management
Four-Year Authorization

EWARK PUBLIC LIBRARY

FEB 20 1981

U. S. GOVT. PUBS.
DEPOSITORY 376

Report to the Congress for Fiscal Years 1982-1985

I 53.2:

142

Prepared pursuant to section 318(b) of the
the Federal Land Policy and Management Act of 1976

U.S. Department of the Interior
Bureau of Land Management
October 1980

Preface

The Bureau of Land Management (BLM) has prepared this Report to the Congress as a background document used in the preparation of the Secretary of the Interior's Request for Authorization to support BLM programs for fiscal years 1982-1985. Section 318(b) of the Federal Land Policy and Management Act of 1976 requires the Secretary to submit such a Request for Authorization every four years and to include in it "the funding levels which he determines can be efficiently and effectively utilized . . . notwithstanding any budget guidelines or limitations imposed by any official or agency of the executive branch."

To help define issues and useful parameters, BLM developed three alternative levels of funding for each Bureau program. These are displayed and discussed in this Report.

The process used to develop the alternative funding levels began with each field office identifying opportunities and demands and estimating the workload that would be required to accomplish them over the four-year period—given current Departmental policies and practices, court decisions, and statutory deadlines. Field personnel developed the funding and staffing requirements to meet this workload, applying cost effectiveness criteria where possible and considering the general constraint of administrative feasibility.

Both the workload and pricing estimates were evaluated, first by the State Offices, and then by program offices in Headquarters. They were compared both with State and national pricing factors and with historical and projected workload trends, when available. In the many programs and new activities where no data were available, the field estimates were subjected to the best judgment and analysis of experienced analysts and managers at several levels of BLM.

Early in this process, the Bureau consulted with the public about their needs and expectations for the public lands in the 1980's. Initial drafts of this report were circulated to public interest groups, the National Public Lands Advisory Council, State and local governments, and other Federal agencies. This final draft incorporates many of their comments and suggestions.

This Report should be read as a base of information referenced in deriving the Secretary's request for an efficient and effective level of authorization for Bureau programs. It does not incorporate any assumptions about future economic or fiscal conditions or about changing policies, priorities, or legislative authorities over the next four years. Nor does it reflect the criteria for the Secretary's decision on an efficient and effective level of authorization for BLM programs.

Preface

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

Table of Contents

1 Introduction

5 Executive Summary

11 Public Land Management: National Mandates and Public Needs 1

19 A Management System to Respond to Public Needs and Mandates 2

27 Alternatives for Funding the BLM Management System 3

37 Programs of the Bureau of Land Management 4

39 Planning and Inventory Coordination

47 Energy and Minerals Management
- 49 Onshore Energy - Coal
- 56 Onshore Energy Other Than Coal
- 65 Offshore Energy
- 73 Non-Energy Minerals (Onshore)
- 81 Non-Energy Minerals (Offshore)

85 Renewable Resource Management
- 87 Range Management
- 93 Wild Horse and Burro Management
- 98 Soil, Water and Air Management
- 101 Wildlife Habitat Management
- 106 Forest Management

115 Recreation and Environmental Areas
- 117 Recreation Management
- 123 Visual Resource Management
- 125 Cultural Resource Management
- 130 Natural History Resource Management
- 134 Wilderness

141 Lands and Realty Management
- 143 Lands and Rights-of-Way
- 152 Land Acquisition

157 **Technical Support and Administrative Services**
159 Cadastral Survey
164 Construction and Maintenance
170 Data Management
175 Fire Management
180 Law Enforcement
183 Equal Employment Opportunity

187 **Issues in Management and Administration**

193 **Receipts and Allocations**

199 **Other Funding Sources**

209 **Summary of Alternative Funding Levels by Program Categories**

Appendices, a separate document, contains the following chapters:

- Summary of Consultations
- Resource Area Planning Schedules
- Audits and Evaluations
- Management of Special Areas

Introduction

The National Public Lands Advisory Council was created under the authority of Section 309 of the Federal Land Policy and Management Act of 1979 and chartered pursuant to the Federal Advisory Committee Act. The Council is composed of members selected from across the Nation for their interest in Public Lands. They advise the Director of the Bureau of Land Management and the Secretary of the Interior on issues affecting public land resources and public land users.

At their March 7-8, 1980, meeting the members drafted a statement of advice to the Director and the Secretary on the Four-Year Authorization request, setting forth the Council's expectations, priorities, and observations on the future of the public lands. This statement is used here as an introduction to the issues addressed in the Four-Year Authorization Report. It recognizes the difficult challenges the Bureau faces in meeting increasing demands for services and resources from a variety of sources and in implementing FLPMA's goals of planned multiple use and sustained yield.

A STATEMENT FROM THE NATIONAL PUBLIC LANDS ADVISORY COUNCIL

Under FLPMA and related legislation, Congress has established new directions, functions, and goals for BLM. It has made clear that BLM's responsibility is permanent stewardship of the public lands under the concept of managing and conserving them for the optimum public benefit. The Council believes that BLM, because of understaffing and underfunding, has been unable to carry out these multiple-use purposes with maximum efficiency. The result has been degradation of the asset, reduced productivity, and less than maximum public use and benefit.

The energy crisis has brought new and almost intolerable pressures on the public lands, further undercutting BLM's ability to administer and execute its statutory functions. The Council believes, therefore, that it is in the urgent national interest that BLM's Four-Year Authorization provide adequate funding to permit it to meet the heavy new stresses imposed upon the public lands, especially from current and prospective military and energy programs.

It is essential that BLM also be given adequate resources to facilitate that search for new sources of energy within the context of protection of the public lands for optimum public benefit. We believe that the Four-Year Authorization proposal presented by BLM offers the best possible means of accomplishing this purpose.

With the stimulus provided by Congress in the last few years, and despite inadequate funding, BLM has already developed a strong operational momentum. This evolutionary development must be supported and encouraged if BLM is successfully to carry out its mission of administering this country's most basic publicly owned resource: 400 million acres of land in the Western States and Alaska, and more than a billion acres of the Outer Continental Shelf. Decisions relating to use of this immense land and water resource during the coming decade will govern basic elements of American life style for centuries to come. BLM, in its role as steward of the public lands, will have to provide much of the information, analysis, and leadership necessary to reach these decisions.

To this end, the Council calls special attention to the following points.

- It is vital that the present management and service capability within BLM, and its long-range planning functions, be fully developed and funded so that the agency can:

effectively carry out its mission of protecting the various resources under its control;

provide for their wise and rational development where desirable;

increase productivity and therefore revenues;

enhance its conflict-resolution ability;

respond more quickly to changing issues and thereby relieve pressures on Congress and the courts; and

establish a perspective to help correlate today's decisions with tomorrow's needs, within the framework of long-term protection, use, and productivity of the public lands.

- BLM will be able to carry out the above functions more satisfactorily to all of its constituencies (Congress, the users, and the public) if it consistently develops alternative methods of reaching its goals. In any given situation, the options need to be set forth, taking into account the variables of time, money, and manpower, and the trade-offs they involve. BLM needs to develop alternative ways of funding to accomplish these goals, within the overall limits prescribed by law.
- The process of decentralizing BLM management should be accelerated so that decision-making authority may be brought as close as possible to the areas directly affected, and the public so informed.
- Services to users at the local level and to those dependent on the public lands should be emphasized in order to comply with the mandates of FLPMA and insure the credibility of BLM. Among these services we would include:

  reducing casework backlogs;

  improving technical support;

  improving information and public participation;

  streamlining regulations and statistics collection (e.g., recreation use).
- Communication with the public needs to be enhanced, and public participation in BLM's decision making needs to be encouraged.
- Identification of the resource-asset base must be completed as expeditiously as possible, using as much information, private or public, as may be obtained, in order:

  to respond to current energy demands;

  to be able at the same time to cope with recognized environmental needs;

  to enable BLM to construct a strategy to meet such emerging national and global problems as food and livestock production and the search for strategic and critical minerals.

The Council makes the following specific observations on additional matters considered to be of primary significance:

- The nationally mandated development of all available energy sources, along with the concomitant doubling of the population of the West, is certain to have a heavily adverse impact on Western public lands during the next decade. In view of this impending pressure, the Council re-emphasizes BLM's stewardship responsibility for these lands, including the development of renewable energy resources. The Council stresses the importance of maintaining environmental protections to the fullest extent possible, especially in those areas immediately subject to energy development. It is crucial in this connection that BLM have an adequate budget for proper planning and a coherent leasing policy, and that it make every effort to minimize undesirable social and environmental impacts while expediting decision making.

- The Council strongly approves the goals of the rangeland improvement program, including soil and water protection, accommodation of wildlife as well as livestock needs, and stimulation of the economy of rural areas. Reduction of livestock herds has been mandated in many instances with the stated purpose of improvement of the range. However, reduction alone is not always sufficient to accomplish this goal. When it is not, funds for direct rangeland improvement through planting or other recognized methods should be provided by Congress to accompany such reductions. When financing for this purpose is not available, ranchers have a legitimate reason to suspect the good faith and credibility of BLM for failure to live up to stated and implied promises.

- Comprehensive and timely inventories are recognized as the necessary prerequisite in planning usage of the public lands and effective management of ongoing BLM programs.

- While the demand for recreational opportunity on public lands has multiplied many-fold in the past 15 years, BLM is neither equipped nor funded to handle it. We recommend a comprehensive analysis to consider all competing demands (particularly in light of recent energy pressures) and to plan for and accommodate the public interest in meeting recreational needs.

- Long-term strategic issues also need to be examined; a study group should be set up for this purpose.

MEMBERS OF THE NATIONAL PUBLIC LANDS ADVISORY COUNCIL

Mr. Craig Ritchey, Chairperson
Palo Alto, California

Mr. Bob Armstrong
Austin, Texas

Ms. Dorothy Bradley
Butte, Montana

Ms. Pamela A. Crowell
Reno, Nevada

Ms. Thalia M. Dondero
Las Vegas, Nevada

Mr. Jerry D. Geist
Albuquerque, New Mexico

Mr. Peter A. Guerrero
Phoenix, Arizona

Mrs. Charlotte T. Harter
Corvallis, Oregon

Dr. Richard H. Jahns
Menlo Park, California

READEX FICHE

Mrs. Donna Metcalf
Helena, Montana

Mr. Mike P. Mitchell
Lewiston, Idaho

Mr. Robert D. Moore
Salt Lake City, Utah

Mr. John B. Oakes
New York, New York

Mr. John W. Schaeffer
Kotzebue, Alaska

Mr. Don H. Sherwood
Denver, Colorado

Mr. J. William Swan
Rogerson, Idaho

Ms. Glenda W. Swanson-Lyle
Denver, Colorado

Executive Summary

Since its creation in 1946, the Bureau of Land Management has served as overseer of roughly 174 million acres of federally owned lands in the western United States not already reserved for national parks, national forests, wildlife refuges, defense installations, or other such purposes. This total more than doubled in 1958 when the Alaska Statehood Act added over 200 million acres of forest land, tundra, mountain, lake, and stream to the public domain. Today, BLM is responsible for the management, conservation, and development of roughly 400 million acres of public land and for the administration of minerals underlying approximately 370 million additional surface acres throughout the Nation owned by other government agencies or private citizens. The Bureau is also responsible for leasing the mineral rights to about 1.1 billion acres on the Outer Continental Shelf, an area rich in reserves of natural gas and oil.

The Federal Land Policy and Management Act of 1976 (FLPMA) replaced most of the legislative, judicial, and administrative mandates that had defined BLM's activities over the years with one definitive, comprehensive statement of national public land management policy. It formally reversed the longstanding assumption that the Federal government would eventually dispose of the public lands and mandated that they be retained in Federal ownership (except when the public interest requires disposal of a particular portion) and that they be managed for the benefit of all Americans under the principles of multiple use and sustained yield.

FLPMA reflected a fundamental change in the Nation's attitude toward its resources, a change that had been evolving for more than a decade. What were once "the lands nobody wanted" had come to be seen as a storehouse of natural wealth critically important to the Nation's future. As our demands for energy continue to grow and foreign sources become increasingly unreliable and expensive, the Nation is turning more and more to the public lands for coal, geothermal, uranium, oil and gas, and a variety of nonconventional energy resources. The value of non-energy minerals on the public lands—beryllium, molybdenum, antimony, phosphate, and potash—has increased as prices have risen, and as we have become more aware of the strategic importance of domestic sources of minerals such as chromium, manganese, cobalt, and platinum. BLM lands must also continue to furnish forage for livestock, timber for housing construction and other products; to supply wildlife habitat for game and protected refuges for endangered species at a time when undeveloped land is shrinking; and to provide the public with opportunities for outdoor recreation, cultural enrichment, and aesthetic enjoyment in a time of increasing urbanization.

But how are these valuable resources to be managed—which developed, which reserved? How are equitable choices to be made from among a variety of uses competing for limited land? How can a sustainable yield of renewable resources be assured? And how fast should nonrenewable resources be depleted? How can the adverse impacts of use and development be minimized?

The value of the resources at stake only heightens the controversy, and as value and controversy together increase, a sound, balanced system for management decision making becomes essential.

Over the years, BLM has developed a system to address these problems. It is designed to meet FLPMA's requirement that decisions on the use of the public lands be based on detailed inventories of the resource base, comprehensive plans describing alternative levels and types of uses, the full participation of the public, and a careful balance among competing users—in addition to fulfilling the other legislative, judicial, and administrative requirements that define much of BLM's activity.

The system has six key components.

- **Service, Operations and Maintenance** The daily tasks performed by BLM employees to carry out plans and policies and to provide direct services to the public, from answering information requests to processing use permits and right-of-way applications as well as maintaining facilities and equipment and monitoring the effects of BLM and user activities on the land.

- **Management Planning Analysis** The first step in planning for a specific resource area, including the identification of issues, planning criteria, information needs, and planning schedules.

- **Inventory** The collection of resource, environmental, social, economic, and institutional information to support the planning efforts that follow. The time required to complete this step for a specific geographic area depends on the amount and quality of the information that is already available and the scope and detail of the information required.

- **Resource Management Planning** The evaluation of options for addressing issues identified through management planning analysis, followed by selection of a preferred alternative and development of a plan to implement it, all based upon the best information available on the basic resource. Environmental assessments, environmental impact statements, and public comment are incorporated into the final resource management plan.

- **Activity Plans** The definition of actions that BLM will take to translate Resource Management Plans into site-specific management investments. Environmental assessments and impact statements are again required.

- **Implementation** The final execution of the management actions determined by activity plans.

While FLPMA set policy guidelines for BLM and mandated the development of a planning system, it also established for the Bureau an unusual authorizing procedure. Recognizing that long-term planning requires long-term budgeting, the Act established a process by which Congress authorizes funding levels for a four-year period which represent a ceiling for the actual Congressional appropriation of funds each year.

Authorizations and appropriations rarely coincide exactly. In its first authorization after the passage of FLPMA, fiscal 1979-1982[1], BLM received authorizations of $380 million and $420 million for FY 1979 and FY 1980 respectively (in 1980 dollars), but appropriations for those years were $340 million and $313 million. Nonetheless, the Four-Year Authorization sets guidelines and expectations for the years to come, and the budget ceilings it establishes have great potential effect on the delivery of services to the people and on the fate of irreplaceable national resources.

---

[1] FLPMA provides for a one-year overlap in the first and second authorizations in order to establish a regular schedule beginning in fiscal year 1982.

In addition to setting authorization levels for the next four years, the authorization process provides an opportunity for broad program assessment and policy evaluation. In his Environmental Message of 1979, President Carter directed the Secretary of the Interior to "establish a comprehensive 'program development process' for managing all the lands under BLM stewardship, which will . . . set long-range goals to ensure balanced protection and use of the resources and develop and analyze alternative programs and investment strategies to meet the goals." BLM has taken advantage of FLPMA's four-year authorization requirement to do just that.

The resulting Four-Year Authorization Report is unique in three important ways. First, it marks the first time that the public has been asked to help shape broad objectives for the management of the public lands. BLM State, District, and Area Managers solicited from State, regional, and local officials, State and local interest groups, and concerned citizens, their views of the needs and problems of public land management, their suggestions on priorities for the 1980's, and their assessment of the key issues for the decade. These views were incorporated in a Draft Report which was reviewed by a wide variety of interest groups, State governors, BLM State Offices, the National Public Lands Advisory Council, and other interested Federal agencies. Public comments yielded six broad priorities for BLM in the 1980's, and the threads of these priorities run throughout the fabric of the Report.

- Improve the productivity of the public lands and the Outer Continental Shelf, particularly for the balanced development of energy resources.
- Improve methods for protecting resource values threatened by changes in land use.
- Develop programs to respond to new demands on the public lands.
- Improve methods for resolving conflicting uses, policies, and procedures.
- Develop programs that respond to BLM's changing management responsibilities.
- Strengthen and maintain BLM service and support systems for improved efficiency and effectiveness.

Second, the Four-Year Authorization Report for fiscal 1982-1985 examines funding needs, for the first time, from the broad perspective of BLM's overall management system. Instead of budgeting primarily for individual programs or issues, the Report considers the funding and staffing levels required to manage complex natural systems for multiple use, and it takes into consideration how changes in priority for one issue or program affect the resources required for other programs.

Considering budget levels through the lens of the overall management system also allows a better look at the relationships between management activities. The six components of the BLM land management process depend on and support each other. Implementation requires completion of action plans, action plans reflect the schedule for comprehensive resource management plans, resource management plans are only as good as the inventory work upon which they are based, and so forth. The Service, Operations and Maintenance function both maintains Bureau programs and investments and provides the personnel and equipment to carry out the policies and programs established by the other five activities. The results of Service, Operations and Maintenance activities on public land resources will eventually become part of further planning, and so we come full circle. Showing how changes in one part of the system require adjustments in the others helps illuminate the real effects of funding priority decisions, effects that lie beyond the purview of single-program decision making.

The third distinctive characteristic of the 1982-1985 Authorization Report is the format of its personnel and funding levels. The fiscal 1979-1982 authorization presented a single personnel figure and a single funding figure for each BLM program. In response to the President's direction in his Environmental Message and the request of Senators Bumpers and Ford in August of 1979, the fiscal 1982-1985 Authorization Report presents alternative levels of funding and personnel support and describes what levels of performance —plans completed, services delivered, investments made, etc.—the public will receive for each level of support.

The three levels were developed with extensive field input. The dollars identified for the highest level (Level 1) are the totals that BLM State Offices said they needed to perform their duties in a comprehensive, timely manner and to eliminate delays resulting from past backlogs and redundancies. The middle level (Level 2) provides a more modest and less comprehensive program carried out somewhat more slowly, while the lowest level (Level 3) represents the support required for the Bureau to meet its legislative, judicial, and executive mandates, but with less capability to improve the quality of public service.

The levels also relate directly to the issues, needs, and demands raised by the public during the consultation process. Level 1 provides for substantial response to expressed public demands and full completion of mandated responsibilities. Level 2 would meet mandates and priorities, a few on accelerated schedules, and would provide high-quality response to expressed public needs in controversial and major program areas and somewhat lower-quality response in other areas. Level 3 allows for the completion of mandated tasks on schedule; however, the Bureau will not be able to respond to many of the desires expressed by the public such as land-case backlog reductions.

The first two chapters of the Report set the framework for detailed discussions of alternative support levels in Chapters Three and Four. Chapter One summarizes the Bureau's history, its role as steward of some of the Nation's most valuable resources, and the needs and interests of its constituencies.

Chapter Two describes the legislative, judicial, and executive requirements which BLM programs must fulfill in the years ahead and the public goals and concerns which will guide Bureau policies. The six-part planning and management system is then described in detail, along with a discussion of its capability to respond to changes in policy, priorities, and funding.

Chapter Three discusses alternative funding levels in 1980 dollars and personnel levels both in total and as they affect the key elements of the BLM management system. Levels 1 and 2 are relatively consistent with previous authorization levels and trends. All three authorization levels represent a significant increase over the 1981 appropriation level. The rate of increase after FY 1982 moderates both for dollars—at levels consistent with budget increases in the past—and for personnel—at slightly higher levels than in the past.

Chapter Four examines the specific programs of the Bureau in detail and compares funding and personnel investment with outputs at the three alternative levels. The programs are grouped into six broad functional categories: planning and inventory coordination, energy and minerals management, renewable resource management, recreation and environmental areas, lands and realty management, and technical support and administrative services. Each section, or program description, gives some background and surveys the current status of major program activities. Then, issues and problems of concern to the public, the Bureau, and the Department of the Interior are outlined as they will affect the future conduct of the program. The goals developed for each program, the strategy for achieving them, and an explanation of how they relate to alternative support levels are also described in this chapter.

The relationship between investment "inputs" and performance "outputs" is described in Chapter Four for both dollars and personnel at each level for each fiscal year. Performance expectations are displayed first by management function and then by specific program products (leases processed, acres inventoried, management plans implemented, etc.). Finally, the extent to which each program either depends on or places demands on other BLM programs is summarized, suggesting the effect that a funding decision for one program will have on the others. Two final sections of Chapter Four—Receipts and Allocations, and Other Funding Sources—provide an overview of BLM's other budget categories.

Section 318(b) of FLPMA requires the Secretary of the Interior to include in his authorization request to the Congress the funding levels which he determines "can be efficiently and effectively utilized" in fulfilling Bureau responsibilities. The Report is a foundation, first, for the Secretary's recommendation and, then, for the final Congressional authorization which will set the levels of dollar and personnel support for BLM programs in the years to come.

Public Land Management: National Mandates and Public Needs

1

1

The Bureau of Land Management is responsible for the management, conservation, and development of 174 million acres of publicly owned land in the 11 western States and an additional 200 million acres in Alaska. The Bureau also administers the 1.1 billion acres of Outer Continental Shelf under Federal jurisdiction and the subsurface minerals that underlie approximately 370 million additional acres throughout the Nation that are administered by other agencies or owned by private citizens.

The lands administered by BLM in the western States are the last of America's wide open spaces. To raise revenues and to spur the development of the West throughout the last century, the Federal government sold or gave away to homesteaders, townships, States, railroads, and private corporations vast tracts of the Nation's public-domain land that had been acquired through war, treaty, or purchase. The Federal government reserved millions of additional acres for national parks, forests, wildlife refuges, defense installations, and other uses. The lands that the Bureau of Land Management currently manages are the lands which, for one reason or another, people at the time felt were less valuable for these purposes or for settlement.

Today, however, as America looks for ways to meet its growing needs for energy, food and fiber, timber, water, and recreation, national attention has turned to the rich reserves of the public lands. The attention is long overdue and, not surprisingly, has spurred controversy and conflict over how to manage and use these resources. The stakes are already high, and they continue to grow.

- Half of the Nation's coal reserve is in the West, and 60 percent of that coal is on the western public lands. The Bureau also administers substantial eastern coal reserves.

- More than 95 million acres of public land are potential sources of geothermal energy.

- Some 35 percent of the Nation's uranium reserve is found on public land in the Wyoming basin and the Colorado plateau.

- About 80 percent of the Nation's oil shale — the largest known reserve in the Free World — lies under public lands, mostly in Colorado and Utah.

- The public lands (including the Outer Continental Shelf) contain roughly 10 percent of the Nation's known oil and gas reserves, and much higher percentages of estimated reserves.

- The public lands contain an enormous storehouse of the Nation's nonenergy mineral deposits, including some of the world's principal sources of beryllium, molybdenum, antimony, phosphate, and potash.

- More than 21,000 livestock operators graze about nine million head of domestic livestock on the public lands. Four percent of the Nation's beef cattle and 28 percent of its sheep graze on the public lands at some point during their lives.

- About 1.2 billion board feet of timber — enough to build 86,000 three-bedroom houses — are harvested from the public lands in an average year. The estimated market value of timber on the public lands is about $15 billion.

- The public spent nearly 200 million visitor days last year at the literally hundreds of unique recreational areas on the public lands. These areas include four Wild and Scenic Rivers, six Scenic or Historic Trails, 40 Primitive or Outstanding Natural Areas, and 29 special Recreation Areas. In addition, 85 National Natural Landmarks and 20 Research Natural Areas have been designated or proposed on lands administered by BLM.

- The Bureau manages the largest number of cultural resource areas in the Nation. Ninety such areas are already listed on the National Register of Historic Places; 80 more are pending. More than 500 other areas are qualified for nomination, and inventories are annually identifying an additional 200-500 sites of major cultural significance.

- No single Federal or State agency manages more wildlife habitat than BLM. The public lands are home to one out of every five of the big game animals in the entire United States, including most of the caribou, brown and grizzly bears, and desert bighorn sheep; 50 percent of the moose; 65 percent of the mule deer; and 45 percent of the antelope. BLM also manages 47 million acres of wetlands, 30 million acres of riparian habitat, 669 thousand miles of perennial streams, and nearly 5 million surface acres of lakes and reservoirs. These lands contain over 90,000 miles of prime trout and other sport fish streams.

Although they are rarely recognized as such, many of the most pressing domestic policy issues facing the Nation are, in fact, also BLM issues. Few agencies are so centrally involved in so many of the high-visibility problems that occupy the Nation's attention: offshore and onshore oil and gas development, energy facility siting and trans-continental pipelines, coal development, synfuels, nuclear and other hazardous waste disposal, MX missile deployment, timber production, the availability of water and land for urban development, the disappearance of the Nation's open spaces, and many others.

A BRIEF HISTORY

Historically, the public lands were used predominantly by western ranchers and mining interests, with few competitors and little regulation. The deteriorated condition of these lands at the turn of the century, underscored by drought and depression in the 1920's, led to the passage of the Taylor Grazing Act of 1934 which provided, through the U.S. Grazing Service, the first program to actively manage the unreserved public lands. The Act focused narrowly on grazing management, however, rather than a broader range of uses and, through language introduced just before passage, perpetuated the assumption that these public lands would eventually be transferred to private ownership. This assumption was reinforced in 1946 when the Bureau of Land Management was formed, through the merger of the Grazing Service and the General Land Office, to serve as custodial manager of the public lands. The new Bureau's management authority was scattered among a myriad of existing mining and mineral leasing, grazing, material disposal, and public land laws, reflecting lack of clarity about the agency's mission. This, combined with the assumption that the land would eventually be disposed of, had the effect of limiting the extent to which Congress would provide funding for investments to improve the productivity of the public lands.

The Congress first clearly expressed its intent to retain the public lands in Federal ownership and to manage them for a variety of public uses when it passed the Classification and Multiple Use Act of 1964 and, in the same year, created the Public Land Law Review Commission to study the issue of public land management and recommend needed changes in policy and authority.

The result was the Federal Land Policy and Management Act (FLPMA) of 1976. First introduced a year after release of the Commission's report, and modified by three Congresses, FLPMA is the definitive statement to date of public land management policy. The Act reflected changing public priorities that had evolved over a decade, the increasing recognition that the public lands are a national heritage, and the belief that decisions about how these lands are used should encompass the broadest possible public participation and debate. FLPMA established the national policy that the public lands would be retained in Federal ownership and managed for all Americans under the principles of multiple use and sustained yield and that decisions on the use of these lands would be based on detailed inventories of the resource base, comprehensive plans on alternative levels and types of use, the full participation of the public, and a careful balance among competing users.

DEMAND FOR PUBLIC LAND RESOURCES IN THE 1980's

The creation of a comprehensive legislative mandate, designed to clarify public policy and to synthesize the several hundred separate and frequently conflicting laws under which the Bureau had been operating, came at a time of rapidly increasing demands on the resources of the public lands. The increasing scarcity of basic commodities, a rapid shift in the demographic center of the Nation to the West and South, more leisure time, and a growing appreciation of environmental values have all increased pressures for the use of the public lands for such competing purposes as energy production, urban growth, recreation, wildlife habitat, and wilderness preservation — as well as for the traditional uses such as livestock grazing, timber production, and mining.

The Bureau of Land Management, unlike many agencies with narrower, more specific or single-purpose mandates, must shape and reshape its resource management policies and programs to reflect public needs that are continually evolving and changing. A broad array of economic, social, and political forces at local, national, and international levels now determine, more than ever in the past, the nature of those public needs from the public lands and, consequently, the form of the Bureau's response.

Domestic and world economic forces — particularly those associated with energy supply and pricing policies — have had an extraordinary impact on decision making for use of the public lands. As the value of such conventional fuels as oil and gas and coal has sky-rocketed, so have the demands for accelerated exploration and development of these resources on the public lands. The same is true of the non-conventional fuels that are prominent in the President's energy policy. Oil shale, geothermal, heavy petroleum, tar sands, solar, wind, and others are all in rich supply on the public lands.

In addition, international political uncertainties have begun to focus attention on the Nation's dependence on imports for a wide variety of strategic minerals, and the demand for accelerated exploration and development of domestic supplies of these same minerals is increasing steadily.

Similarly, as the cost of petroleum-based fertilizers and feed for cattle increases, the demand for grazing livestock on the renewable forage resources of the public lands will also increase.

This pattern of dramatically accelerating demands for both the commodity resources of the public lands and the facilities and services associated with them — coal-fired power plants, transmission lines, pipelines, railroad spurs and other rights-of-way, timber access roads and bridges, and livestock projects — parallels a similar increase in demand for the non-commodity resources these lands possess.

The rising concern for the environmental and recreation values of the extraordinary scenic, cultural, ecological, and archeological resources of the western public lands is clearly evident in the high interest the public is taking in the wilderness program, off-road vehicle management, archeological-protection legislation, and the protection of areas of special interest, such as the California Desert, the King Range in California, the Birds of Prey area in Idaho, the Anasazi Indian cultural sites in Colorado, and scores of others.

As a result of these changing demands, more people now feel they have a stake in, and something to say about, how the public lands are managed. The President gave special attention to the needs of both new and traditional public-land constituencies in his 1979 Environmental Message. In that address, the President said BLM would:

- Be a good steward of the land, seeking to find the best balance of uses to assure that resources are available to meet the Nation's needs and that environmental values are carefully protected;
- Be a good neighbor, providing full opportunities for those affected by BLM's management decisions to be involved in making them, giving special consideration to the people and institutions of the western States that are most directly affected;
- Make cost-effective investments in protecting and enhancing these lands within the constraints of fiscal responsibility; and
- Seek to resolve conflicts among competing uses in a spirit of cooperation and trust, and to make — not avoid — tough decisions on the allocation of the valued resources of the public lands.

CONSISTENCY WITH U.S. FOREST SERVICE IDENTIFICATION OF NATIONAL DEMANDS FOR COMMODITIES AND SERVICES

In addition to the Bureau's own rough demand analysis and to public input, each of the BLM resource goals was also evaluated against the supply/demand analysis provided to the Bureau by the U.S. Forest Service as part of its 1981 resource assessment activities under the Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA). The RPA assessment by the Forest Service forecasts national demand for the commodities and services that are provided by the National Forest System, the State and private forestry program, and the Forest Service research program. The Bureau and the Forest Service provide many closely related commodities and services in their roles as Federal land managers supplementing the system of private sector suppliers.

BLM found the RPA assessment particularly valuable in evaluating projected levels of national demand and the program goals and outputs developed to respond to them. As a result of the evaluation, BLM resource and public-service goals either were found to be consistent with, or were brought into general consistency with, the Forest Service analysis.

BLM and the Forest Service have initiated a process to coordinate more closely developmental activities of the RPA assessment and the Four-Year Authorization over the next several years. This and other joint efforts are planned to increase the analytical capabilities of the agencies and to improve the productivity of Federal lands in the West and across the Nation.

THE NATIONAL INTEREST AND THE INTERESTS OF THE WEST

The programs the Bureau develops to address both specific mandates and expressed public needs—and the tradeoffs involved in shifting limited money and personnel to reflect changing priorities—have direct and frequently lasting effects on the West. Decisions on the use of the public lands can significantly affect the entire fabric of western community life. Decisions to accelerate or postpone the pace of development of public land resources can dramatically alter the traditional patterns of settlement, the direction of economic growth, the movement of population, and even the social character of western communities.

Not surprisingly, therefore, the increasing value of and demands upon the resources of the public lands have become a topic of escalating debate among westerners concerned about who should make public land use decisions, how such decisions should be made, and whether the interests of the West can be effectively addressed at the national level. Of course, "the West" is not a monolith. The interests of the West, like the programs of BLM, are constantly evolving, particularly as the West becomes a more urban place. A decade ago, the Census Bureau found that 12 of the western States were among the 20 most urbanized States in the Union, and the "Sunbelt" development phenomenon during the last decade further underscores the trend of western urbanization.

As a result, many of the needs of the West are not that different in substance (though they may differ in emphasis) from those of the rest of the Nation: expediting but carefully pacing mineral and energy development; ensuring the health of the livestock industry and the social and economic well being of the communities that depend upon it while increasing rangeland productivity; protecting water resources and their availability for future growth; finding places for recreation activities of many kinds; providing for community growth; improving access to and through the public lands; protecting wildlife for both conservation and economic purposes; preserving agricultural lands and open spaces; and protecting the best of the Nation's natural, historical, and cultural heritage.

Still, communities in the West have a long and unique history of attachment to the resources of the public lands. While BLM makes every effort to manage public land resources with a special sensitivity to that history, it has not always successfully anticipated and addressed the special needs of these communities. The effects—both positive and negative—of decisions about the development and use of public land resources do not always fall equally on all concerned. What's more, the Bureau is also mandated to manage the public lands for the benefit of all Americans, and as priorities change and demand for specific resources shifts, the National interest and more localized and specific interests at times conflict.

The Bureau will continue to seek to resolve such conflicts as sensitively and equitably as possible. Reflected throughout the program and policy discussions in this Report are BLM's commitments to continued and increasing public participation, to conscientious consultation with all interests to a given decision, to maximum feasible delegation of decision making to the local level, and to efficient and responsive delivery of public services.

THE NATIONAL INTEREST AND THE INTERESTS OF ALASKAN AND COASTAL COMMUNITIES

While most of the surface land managed by BLM is in the inland portion of the contiguous western States, the Bureau also manages millions of acres in Alaska, as well as some land in the Great Lakes region. In addition, BLM has jurisdiction over 370 million acres of subsurface—Federally owned mineral rights below surface which is privately owned or managed by other agencies; much of this subsurface acreage lies in the East. Finally, BLM has jurisdiction over the entire Outer Continental Shelf (OCS).

In Alaska, BLM is overseeing the transfer of over 40 million acres of land to the State of Alaska and Alaskan Natives. This transfer involves a complex selection process, a monumental amount of surveying, and significant interim management responsibilities. Alaskan lands which are not transferred to the State or Natives, or designated as National Parks, Monuments, or Refuges, will continue to be managed by BLM. Alaskan lands, largely undeveloped, represent a vast pool of national resources for energy and mineral development, as well as for wildlife and recreation values. As a major land manager in Alaska, BLM will continue to have a role in the balancing of national, State, and local interests in energy and mineral development, economic growth, preservation of unspoiled lands and maintenance of the Alaskan way of life.

The acceleration of OCS oil and gas leasing in the last decade has significantly expanded BLM's management role outside of the West. As OCS development is increased to help meet national energy goals, the Bureau's OCS program will continue to be of concern to coastal States and communities. These new constituencies have an economic stake in the maintenance of wildlife and scenic values in the coastal and near-shore zones on which their economies frequently depend. They also have an interest in protecting existing commercial uses of the coastal zone and of offshore waters, such as commercial fisheries.

As energy requirements and other resource development pressures increase, BLM's activities outside of the West will increasingly affect and involve new, different, or expanded interests and populations.

THE FOUR-YEAR AUTHORIZATION

Recognizing the need for farsighted assessments of public demands on the resources of the public lands, the President, in his 1979 Environmental Message, directed the Secretary of the Interior to "establish a comprehensive 'program development process' for managing all the lands under BLM stewardship, which will . . . set long range goals to ensure balanced protection and use of the resources and develop and analyze alternative programs and investment strategies to meet the goals."

Congress, when it passed FLPMA, also recognized the long-range planning and budget requirements of public land management and provided for a Four-Year Authorization process to help ensure program stability. Under this provision, the Secretary of the Interior is directed to submit to Congress an authorization request including an examination of the funding levels which he determines can be efficiently and effectively utilized in the managing of public lands and resources, unconstrained by the usual budgetary process.

The Four-Year Authorization approved by Congress will set the limits for funding and personnel levels from 1982 through 1985. Although actual dollars and personnel limits are determined annually through the appropriation process, the authorization will chart the route which BLM will follow. It is an opportunity not only for the Congress to evaluate BLM's programs and progress but for the Bureau itself, agencies of local and regional government, and the interested public to take a look at how far the Bureau has come, where it has succeeded and where it falls short, and to define the priorities and goals to shape its future.

A Management Systen to Respond to Public Needs and Mandates

2

2

The Bureau of Land Management must respond to two broad sources of direction and guidance: expressions of needs, values, interests, and problems from all of the people with interests in the public lands, and specific mandates of the Congress, the courts, and the Executive branch. This chapter describes the demands placed upon the Bureau from each of these sources and examines in detail the management system the Bureau has established to address those demands.

WHAT THE PUBLIC WANTS FROM BLM

The Bureau of Land Management took the opportunity provided by the 1982-1985 Four-Year Authorization request to ask the public to express their needs from and their expectations for the public lands. The Bureau's State Directors contacted their respective Governors, State officials, State and regional interest groups, and—through the Bureau's District and Area Managers—county and local officials and individuals, asking them to identify both public land needs and problems with public land management and to suggest opportunities and priorities for the 1980's.

The needs, problems, and issues that the public identified generally fall into the six broad categories summarized below.

Improve the productivity of the public lands and the Outer Continental Shelf, particularly for the balanced development of energy resources.

They expect the Bureau to improve the productivity of the public rangelands, to manage an aggressive, balanced leasing program to increase production of oil, gas and coal in an environmentally sound manner, and to manage public forest lands more intensively to increase the production of commercial timber and related wood products.

And they want the Bureau to carry out these measures very carefully so there are few unanticipated social, economic, or environmental impacts.

Improve methods for protecting resource values threatened by changes in land use

They want the Bureau to identify potential adverse impacts associated with changes in the use of public lands and to develop and implement measures to protect threatened resource values such as wildlife, cultural or historic sites, and unique natural areas.

Develop programs to respond to new demands on the public lands

They want the government to accelerate development of strategic minerals, non-conventional energy resources (oil shale, geothermal, tar sands, etc.), to reduce the Nation's dependence upon imports.

They want detailed, public analysis of the problems involved in the handling and disposal of hazardous, toxic, and nuclear wastes before irreversible decisions are made.

And they want detailed analyses of the impact of the proposed deployment system for the MX missile.

Improve methods for resolving conflicting uses, policies, and procedures

They want the Bureau to recognize the policies, procedures, and, particularly, priorities of State and local governments and to make a special effort to accommodate those priorities.

They want to know what the potential impacts of alternative land uses are likely to be.

They also want to be involved more effectively in BLM decision making, particularly when it seeks to balance traditional uses of public land resources with emerging demands for wilderness, wildlife-habitat management and protection, and cultural resource protection. They also want such decisions made quickly to reduce uncertainty.

And they want the Bureau to develop a program to resolve water rights conflicts relating to the public lands.

Develop programs that respond to BLM's changing management responsibilities

They want the Bureau to move quickly in meeting its new responsibilities, particularly in permitting energy transportation systems and in energy facility siting, in developing recreational facilities providing visitor services, and in protecting and managing "special areas."

And they want the Bureau more adequately to address and mitigate the social and economic impacts of public land use decisions on communities and individuals.

Strengthen and maintain BLM service and support systems for improved efficiency and effectiveness

They want more, better, and faster tangible public services from the Bureau, particularly elimination of casework backlogs in land exchanges, mineral-lease applications, rights-of-way requests, and a wide variety of other use authorizations that have been put on the "back burner" as priorities shifted.

They want the Bureau to dispose of small, isolated tracts of public land that cannot be managed efficiently and, as a general rule, to avoid acquiring additional public land.

They want the Bureau equipped to provide mandated technical and administrative support services—cadastral surveys, law enforcement, land-ownership changes, fire management, facility construction and maintenance, and skills training.

They want the Bureau to complete its inventory and planning work in a timely manner to facilitate prompt decisions.

And they want the Bureau to work to eliminate conflicting and inconsistent statutory guidelines.

NEW AND INCREASING MANDATED RESPONSIBILITIES

As public interest in and demands on the resources of the public lands have increased, so too have Congressional, judicial, and Executive mandates for more intensive management, improved protection, and expanded services. Many of these mandates have specific schedules and deadlines for completion. Some of the most notable recent legislative mandates include:

- Completing by 1991 a review of potential wilderness areas;
- Completing by 1991 a review of withdrawals of public land made prior to October 21, 1976;

- Preparing and executing a five-year schedule for Outer Continental Shelf oil and gas leasing;
- Initiating new regional coal leasing by 1981 and an aggressive coal leasing program with the processing of all previous-preference-right lease applications by 1984;
- Completing mandated conveyances of public lands to the State of Alaska and conveyance of lands to Alaskan native villages and corporations;
- Recording all mining claims by 1979;
- Processing all existing unintentional trespass cases by October 1981; and
- Developing a comprehensive land use plan for the California Desert, one of the largest natural resource planning programs ever undertaken by the Federal government.

Judicial mandates which have had the greatest impact on the Bureau's management responsibilities include:

- Completing 144 environmental impact statements for livestock grazing on 170 million acres of public rangeland by 1988;
- Completing similar EIS's on forest management in Oregon and portions of California and Idaho by 1982;
- Designating public land areas specifically open or closed to off-road vehicle use by the end of 1987.

Also growing in number are Executive orders that mandate the completion of a variety of special surveys and inventories—of cultural, wildlife, wetland, and endangered species resources, for example—prior to permitting the use of public land for development.

DEVELOPING A RESPONSIVE MANAGEMENT SYSTEM

The public tends to describe their concerns about resource management as "issues." So do the Congress, the President, State and local officials, and interest groups. There are energy issues, facility-siting issues, Outer Continental Shelf development issues, mining issues, wilderness protection issues, livestock-grazing issues, and so forth. Similarly, the Bureau's budget and its functional organization are divided into "programs" designed to address one or more of these issues: energy and minerals management, range management, forest management, and the like. When statutory, judicial, or administrative mandates change, the Bureau is often expected rapidly to shift available funding and personnel resources from program to program to adjust to new demands. In the long term, however, this is an inefficient and ineffective approach to land and resource management.

As the Congress recognized when it drafted FLPMA, public land management is not simply a matter of administering a series of programs to address separate problems and issues. The central reality of public land management stems from the nature of the lands themselves. BLM manages an intricate natural system whose varied parts—from coal to caribou, mineral resources to wildlife—interlock in a seamless ecological system wherein change in one element almost invariably means change in another. FLPMA mandates a management approach which reflects the sensitivity and complexity of this natural system. The Bureau has developed a management system to meet this FLPMA mandate and to guide the Bureau's planning and management activities. There are six key elements in this system.

Management Planning Analysis

Once the geographical boundaries of a specific planning area are defined, the Bureau works with local interests in the area and prepares a management planning analysis that identifies significant issues, specifies planning criteria, defines data and information needs, and lays out a planning schedule. These activities usually take two to three months and precede the collection of inventory data by six months to a year. The main function of this element is to focus on an area's specific management needs and to insure that planning addresses relevant public concerns.

Inventory Data Collection

With the management planning analysis as a framework, the Bureau collects resource, environmental, social, economic, and institutional information. The time required to complete this step in the planning process for a specific geographic area depends on the amount and quality of information that is already available, the scope and detail of the information required, and the availability of staff and funding.

Resource Management Planning

Equipped with the inventory data, Bureau staff then prepare a resource management plan to address the issues identified in the first step, identifying alternative ways of managing the resources involved, evaluating the degree to which these alternatives meet expressed needs (the criteria developed in step one), selecting a preferred alternative, and developing a resource management plan to implement the preferred alternative. The Bureau next prepares an environmental assessment or impact statement on the effects of the preferred alternative and, as it has throughout the process, asks for advice from the public on the suitability of the plan. Revisions are made to accommodate public comments and the plan is completed. It normally takes two years to prepare, review, revise, and adopt a resource management plan. The longer it takes to complete such a plan—because of budget or other limitations—the longer it takes to develop public resources, to implement changes in land management and use, and to deliver public services.

Activity Plans

After the broad resource management plan is completed, the Bureau prepares specific activity plans to translate the land-use plan into fences, roads, wells, seedlings, plantings, bridges, trails, recreational facilities, and the myriad other management investments that are a fundamental responsibility of the Bureau. Because site-specific environmental assessment and impact statements are required at this stage in the planning process, it usually takes two years to prepare, review, and finally adopt specific activity plans for a resource management area.

Implementation

After project-specific activity plans are adopted, the management plan for a particular resource area can be implemented. It is at this stage that new permit systems are instituted, special management areas are formally designated, and new facilities are constructed. The time required to implement an activity plan varies with the nature of the activity involved and the availability of staff and funding. A frequent public complaint is that, while the Bureau is generally funded and staffed to complete mandated planning tasks, it is not equipped to implement plans once they have been adopted or to monitor their effectiveness.

Service, Operations and Maintenance

After a resource management plan is implemented, there are facilities and improvements to maintain, day-to-day requests for information to respond to, and requests for specific use authorizations to review, grant, and monitor. These and other ongoing activities are included in the service, operations and maintenance element of the management system. While these basic activities are continuous, their nature and relative importance vary as changes occur in the demand for specific BLM services and as resource management plans are implemented or amended. If range improvements are constructed in a specific resource area, for example, it is essential that funding be available to cover the increased maintenance costs. Similarly, when coal is leased in a specific resource area, staff must be available to monitor compliance with the Bureau's use stipulations.

The six phased elements of this management system reflect both the sequential nature of the Bureau's management activities and the interdependence among the Bureau's programs. The Bureau cannot legally issue a coal lease, approve a transmission route, or construct a range improvement project before the associated inventory, planning, and impact assessment work is completed. Any decision that delays or expedites one element of the management system will necessarily affect the other elements. Similarly, the Bureau cannot legally decide to issue a coal lease or to permit the recreational use of off-road vehicles in a particular area without first considering the other resources in the area affected and the other uses to which the land might be put. Decisions that are made concerning one of the Bureau's programs or one of the resources managed by the Bureau necessarily affect and involve other Bureau programs and other resources.

This management process is designed to resolve the inherent conflicts and problems in managing public lands and resources for multiple use. If properly implemented and supported with sufficient resources, this system is capable of resolving many of the conflicting demands placed upon the public lands and of facilitating the development of needed resources while protecting other resource values from inadvertent damage or destruction.

Certain elements of this management system are far more sensitive to the availability of funding and staff than are other elements. For example, while variations in funding certainly affect the quality of a planning product, Congressional and judicial planning schedules mean that many of the Bureau's planning activities cannot legally be deferred. The resource management plans required to meet the wilderness review schedule, the withdrawal review schedule, and the grazing EIS schedule, to mention only three, will be completed even if only a limited amount of funding is available. Other Bureau activities can be, and often are, deferred. For example, implementation of adopted resource management plans can be delayed if funding and staff are scarce. Similarly, maintenance of existing facilities can be postponed if the necessary funds are required to support other Bureau activities.

When funding and personnel are insufficient, the time required to implement plans, to respond to use-authorization requests, and to provide protection for public investments increases, while the number of plans implemented, applications processed, and facilities regularly maintained decreases. Unfortunately, those activities that are most sensitive to the availability of funding are precisely those activities that serve the public most directly.

As a consequence, if the Bureau is required, as a result of insufficient funding and personnel, to focus on some resources at the expense of others or to emphasize certain elements of the management system to the detriment of others, many land and resource management goals will probably not be accomplished. The Bureau's management system will be able to meet the objectives for which it was designed only if BLM's authorization and appropriation levels are adequate to meet the requirements of each phase of this process and only if the funds and personnel available to the Bureau are allocated to support these interrelated activities.

Alternatives for Funding the BLM Management System

3

3

In order to provide an analytical base for the Secretary's authorization request, the Bureau of Land Management, with the previously described legislative and Executive mandates in mind and after lengthy consultations with the general public, developed three alternative funding and staffing levels for the 1982-1985 authorization period. Each level incorporates a balanced and internally consistent mix of the management activities described in Chapter Two. Chapter Three provides a description of the assumptions made in constructing the alternative levels, a description of each level with a comparison to current authorizations and appropriations, and a comparison of performance at each level in the context of the six management categories. Chapter Four describes the alternative investment and performance levels for each program over the four-year authorization period.

PERFORMANCE ASSUMPTIONS FOR THE THREE ALTERNATIVE FUNDING LEVELS

In developing three alternative levels of funding and personnel support, certain assumptions were made about BLM's performance during the four-year authorization period.

While there is a good deal of long-term flexibility in the Bureau's management system, its capacity to shift priorities rapidly from program to program in the short term is constrained by several factors. First, much of the work of the Bureau in the next two to five years is essentially non-discretionary, since it is mandated by a variety of Congressional, Executive, or judicial orders with fixed completion schedules. For example, the court-ordered preparation of 144 grazing EIS's on 170 million acres of public land in the contiguous western States must be completed by 1988. Similarly, the FLPMA-mandated wilderness and withdrawal reviews must be completed by 1991. Unless Congress is willing to extend the schedules, money and personnel allocated by the Bureau to complete the inventory and planning work needed to meet these and other mandated schedules must be considered non-discretionary and cannot be shifted to meet new mandates or emerging public needs.

Therefore, the Bureau has assumed for the purpose of this Report that existing program mandates will not be changed, that planning schedules will not be extended, and that mandated deadlines will be met, though at varying levels of performance quality. At higher funding levels, certain planning schedules, such as wilderness review, may be accelerated.

Second, a somewhat less rigid but nevertheless constraining factor is the elaborate public process by which new regulations and operating procedures are established. The passage of FLPMA, for example, necessitated the development of new regulations for a wide variety of purposes from planning to land actions. Each of these new regulations and procedures was published in "proposed" form, reviewed by the public, modified to address public comments, sometimes re-reviewed, and finally adopted—a process which can take more than a year. Thus, the lead time involved in modifying or replacing these procedures, many of which have been adopted only recently, can be an important limitation on the speed with which the management system responds to change.

For this reason, the Bureau has assumed that the procedures and methods currently used to accomplish these tasks will remain largely unchanged. While improvements in procedures, methods, and technologies are possible, we have not attempted to anticipate them for this report.

All three levels address, at least minimally, three central objectives:

- to meet the program mandates and schedules set by the Congress, the courts, and the Administration;
- to respond to the program and management priorities established by the Secretary of the Interior over the last three years (such as sound coal and OCS development, improved rangeland productivity, timely and effective service to the public, etc.); and
- to carry out the principles set by the President in his Environmental Message—good stewardship, a good-neighbor approach, cost-effective investment, and open decision making on the tough issues.

OVERALL CHARACTERIZATION OF THE ALTERNATIVE LEVELS

Certain generalizations can be made about the Bureau's performance of specific management activities—inventory, planning, implementation, and service, operations and maintenance—at each level of support.

Level 1 represents the high-quality, comprehensive program that is necessary to address fully the increasing demands of the 1980's, and it provides a reasonable response to expressed public demands and full completion of mandated responsibilities, some on accelerated schedules. It would eliminate backlogs and streamline the provision of services, would provide scheduled preventive maintenance for all facilities, and would assure the availability of high-quality inventory and monitoring information.

Level 2 provides a more modest and less comprehensive program which will meet some, but not all, of the demands on public land resources at a somewhat slower rate (2-4 years later in most cases). It would meet mandated schedules and priorities, a few on accelerated schedules. It would provide scheduled preventive maintenance on facilities and equipment in high-use areas and an "as needed" maintenance program for other areas. Level 2 emphasizes highest-quality inventory and monitoring information in controversial or major program areas and somewhat lower quality in other areas.

Level 3 allows for the completion of mandated tasks on schedule; however, at this level, the Bureau will not be able to respond to many of the needs expressed by the public during the Four-Year Authorization consultation process, such as accelerated wilderness reviews. There would be little or no preventive maintenance. Backlogs would increase and public service would be very slow in the land and energy and minerals programs throughout the next decade. Monitoring and inventory information would frequently be of low reliability.

TOTALS AND TRENDS FOR ALTERNATIVE FUNDING LEVELS

Total dollar and personnel requirements for the three alternative levels are shown in the first table below. In addition to the FY 1982-1985 alternative funding levels, existing authorizations for FY 1981 and FY 1982 are shown, along with the 1981 appropriation request. Note that all the dollar figures have been inflated or deflated as appropriate into 1980 dollars to facilitate comparison. The second table illustrates the three levels graphically in the historical context of prior authorizations and appropriations (again in constant 1980 dollars).

The significant increases required between 1981 and 1982 at all three levels are a "catch-up" phenomenon caused by current backlogs. The deferment of work on the public lands because of budgetary and personnel restraints in the past has led to many of the problems facing the Bureau today: deteriorating conditions on some public lands, inability to provide prompt service to users, large backlogs and long delays in handling applications for use of the public lands, and lack of reliable data.

At Level 1, these backlogs would be eliminated. At Level 2, they would be reduced and, possibly, eliminated if demand remains stable. At Level 3, backlogs would increase, and with them the associated problems.

Personnel requirements present a somewhat different picture. In the past, increases in BLM's responsibilities and mandates have been met with increased funding but not with significant personnel increases. To balance staffing shortfalls, BLM contracts out some of its workload, particularly inventories and on-the-ground implementation of resource management plans. However, a long-range management agency requires experienced and well-trained field staff if it is to provide stable and efficient resource management and responsive public service. The personnel situation will not significantly improve unless there is a change in the past trend for personnel increases.

Total Investments[1]

Funding Required in Thousands (000) of 1980 Dollars

	Requested Appropriation	Existing Authorization		Authorization Analysis			
	FY 1981	**FY 1981**	**1982**[2]	**FY 1982**	**1983**	**1984**	**1985**
Level 1	326,413	480,945	523,273	518,370	574,865	637,371	660,720
Level 2	326,413	480,945	523,273	474,423	516,443	575,891	592,861
Level 3	326,413	480,945	523,273	402,960	436,120	460,270	491,070

Personnel Required (Full-Time Permanent Positions)

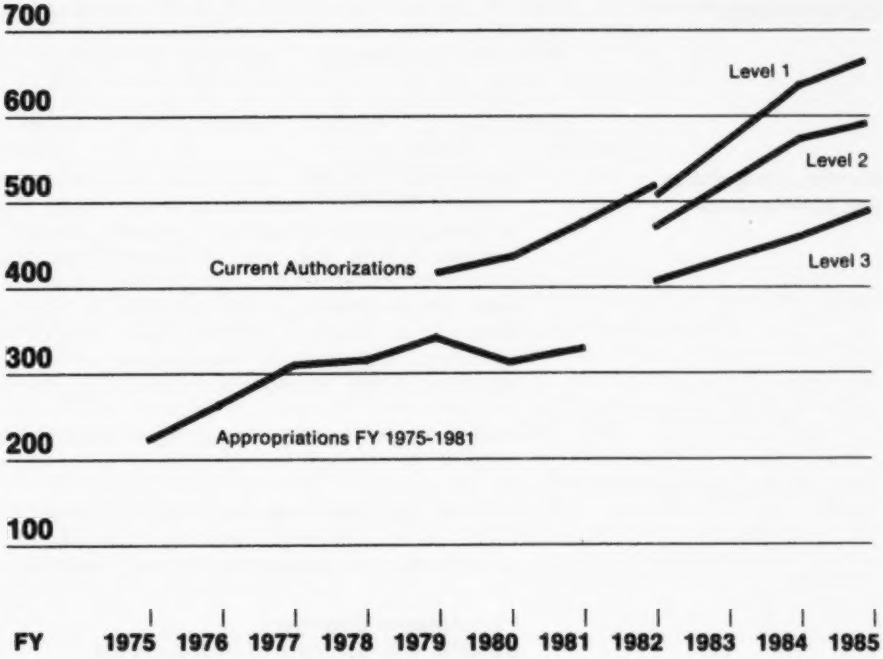
	Existing Ceiling	Existing Authorization		Authorization Analysis			
	FY 1981	**FY 1981**	**1982**	**FY 1982**	**1983**	**1984**	**1985**
Level 1	5,087	6,631	6,891	7,108	7,748	8,167	8,584
Level 2	5,087	6,631	6,891	6,571	7,104	7,479	7,791
Level 3	5,087	6,631	6,891	5,875	6,174	6,455	6,686

[1] A breakdown of these levels is provided by management category at the end of Chapter Three and on a program by program basis at the end of Chapter Four.

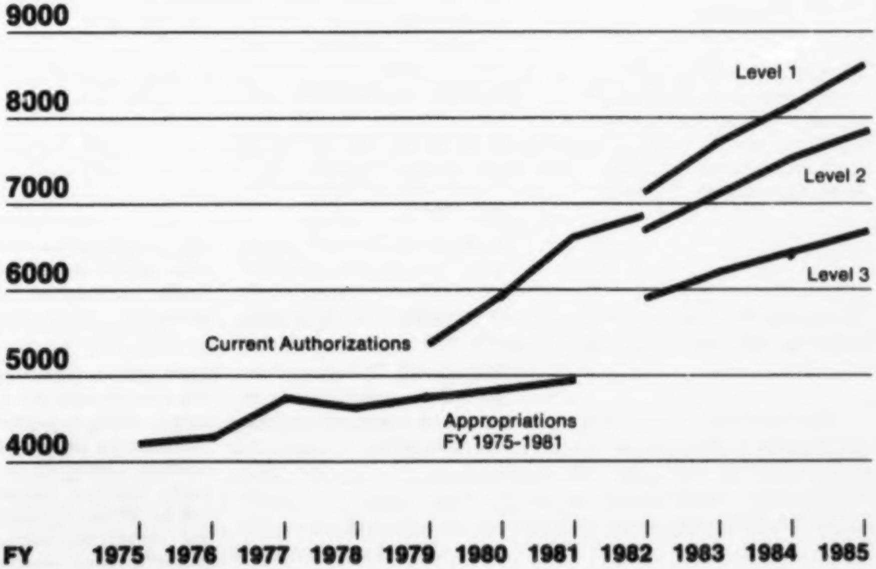
[2] FLPMA provides for a one-year overlap in the first and second authorizations in order to establish a regular schedule beginning in fiscal year 1982.

Alternative Funding Level Trends Dollar Requirements

In Millions of 1980 Dollars ($000,000)



Personnel Requirements (Full-Time Permanent Positions)



ALTERNATIVE PERFORMANCE LEVELS WITHIN MANAGEMENT CATEGORIES

A general comparison of the investments made and the performance achieved at each level, viewed within the context of the six management categories, is provided below.

Service, Operations and Maintenance

Increases in service, operations and maintenance activities for the four-year period 1982-1985 respond to three needs: the need to operate and maintain on-the-ground improvement projects so that existing capital investments do not deteriorate, the need to develop new programs or expand existing programs to respond to emerging public-service demands, and the need to eliminate extraordinary service backlogs in traditionally underfunded programs. Much of what is proposed at Levels 1 and 2 is intended to alleviate existing backlogs and program deficiencies. At all three funding levels, the rate of increase in this management activity is relatively even from year to year.

The average yearly increase from 1982 to 1985 at Level 1 is $27 million; at Level 2, $21 million; and at Level 3, $13 million.

Service, Operations and Maintenance work is "people intensive." More often than not it cannot be done by contract. Therefore, the levels of full-time personnel must parallel the funding levels provided.

Performance Summary
Service, Operations and Maintenance

Level 1	Level 2	Level 3
Public Service Provides for a high level of expeditious response to public needs. Backlogged land exchange, rights-of-way, oil and gas, and other use applications will be speedily processed, and the handling of new requests will be accelerated to prevent recurrence of backlogs. This level provides for improved response to requests for Bureau support programs, such as cadastral survey and fire protection.	**Public Service** Critical backlogs will be reduced and possibly eliminated over time if demand remains stable. The rate at which use-authorization requests are processed will not change.	**Public Service** Existing backlogs of use-authorization requests (exchanges, rights-of-way, oil and gas lease applications, etc.) will not be reduced and may increase substantially where demand increases, such as oil and gas lease applications. Requests will be processed at the present rate.
A high level of public information and technical assistance and of public participation will be provided for in Bureau programs.	Public information and technical assistance services and public participation will be adequate.	Public information and technical assistance, as well as opportunities for public participation, will be limited.
Maintenance Provides for preventive maintenance as well as for upkeep of facilities and equipment.	**Maintenance** Some preventive maintenance will be possible in areas of highest use. Maintenance backlog may be gradually reduced. In most cases, however, maintenance will be limited to repairs that are immediately required to protect existing investments.	**Maintenance** Capital investments will be repaired on a limited basis considering day-to-day needs and highest priorities. Little or no preventive maintenance will be performed.

Monitoring Provides for monitoring of resource investment or protection programs (e.g., range condition monitoring to permit informed grazing adjustments as trend information is collected, surveillance of rare archeological sites, and follow-up on plan implementation).	**Monitoring** Some monitoring will be possible in areas of highest use, largely to prevent or identify damage to critical resources rather than to ensure implementation of plan recommendations. An exception is range-condition monitoring, which will continue at a level adequate to permit informed grazing adjustments as trend information is collected.	**Monitoring** Monitoring will be limited in all programs. Some increase in monitoring of rangeland conditions will occur.

Inventory

As both FLPMA and the Public Rangeland Improvement Act (PRIA) recognized, maintenance of an accurate and up-to-date inventory of public land resources is one of the Bureau's most important responsibilities. It lays the foundation for the plans and actions that follow and has a major effect on their quality. A significant increase in funds is identified from FY 1981 to FY 1982 at both Level 1 ($53 million) and Level 2 ($44 million). Inventory costs appear to remain relatively constant from 1982-1985. This is a distortion, however, resulting from the inclusion of out-year studies for the Outer Continental Shelf leasing program which add $35 and $32 million in additional inventory costs to Levels 1 and 2 in 1984 and 1985 respectively. When these funds are subtracted, the cost of inventories on the public lands falls off dramatically during the 1982-1985 period. No significant increases for inventories are provided at Level 3.

A significant amount of inventory work can be contracted to the private sector, thus resulting in only a minor rise in Bureau personnel levels. This minor increase is needed to develop and monitor the inventory contracts and, in some areas, to carry out directly selected inventories. At both Levels 1 and 2, personnel for inventories rises by 370 and 325 people respectively between 1981 and 1982. After 1982, personnel levels remain relatively constant.

Performance Summary
Inventory

Level 1	Level 2	Level 3
Data collection will be comprehensive. New resource data, field assessments, and trend analyses will be possible in many geographic areas to update existing resource inventories.	Inventory work will rely on existing inventory data for the most part, but some limited collection of new data will be possible in areas where data is thin and the need greatest. Quality will be lower, but acceptable.	Inventories will be based on literature surveys and extrapolation of old data. New data will be collected only in those areas that are not covered by Bureau's existing inventories.

Resource Management Planning and Management Planning Analysis

These two activities are discussed together because they are so closely related. Of all the activities of the management system, they represent the smallest portion of the Bureau's budget (3.7% in 1981).

Funding for planning is the same at Levels 1 and 2, peaking in 1984 some $10.3 million above the 1981 figure, mostly to provide for accelerated wilderness review. Level 3 provides a smaller increase above the 1981 amount, $5 million in the peak year of 1984, and does not provide for wilderness acceleration. These increases are to handle the regular, largely mandated planning schedule which is shown in detail in Appendix 2.

Planning decisions at Level 3, based on old data which is generally more superficial and less reliable, are more vulnerable to successful litigation and may, therefore, increase the potential for substantial delays in plan implementation and resource development and for greater rates of resource deterioration.

Neither management planning analysis nor resource management planning can be significantly contracted, so increases in full-time positions parallel funding increases at Levels 1 and 2. At Level 3 there are no significant personnel increases.

Performance Summary
Management Planning

Level 1	Level 2	Level 3
Planning analysis will be thorough and based on high-quality data. Existing schedules will be met, and accelerated planning will be possible in areas of high resource conflict (e.g., areas with both wilderness and mineral development potential) or high public demand (e.g., wilderness review or grazing EIS's). Plans will give additional analytic attention to social and economic, as well as to traditional environmental, impacts of alternative actions.	Planning schedules will be met, though the use of existing data in most areas will affect overall quality. Accelerated planning will be possible in some but not all areas of very high conflict. Plans may also be able to address some new demands.	Mandated planning schedules will be met, though plan quality will vary substantially based upon the quality of existing data. Programs and services not covered by mandated schedules will be given low priority.

Activity Planning

Funding for the preparation of activity plans—the step which defines specific actions for implementation—has an average annual increase from 1981 to 1983 of $11 million at Level 1, $9 million at Level 2, and $6.5 million at Level 3, then levels off in 1984 and 1985.

The preparation and execution of activity plans is a people-intensive activity. For this reason, personnel requirements rise in proportion to funding between 1981 and 1983, by 315 people at Level 1 and by 240 people at Level 2, and then level off. No significant personnel increases are identified at Level 3.

Timely preparation of activity plans is necessary to enable the Bureau to determine the sequence and priority of implementation actions.

The differences between Levels 1, 2, and 3 are due to differences in the rates of implementation at the three levels and in the rates at which new activity plans can be accommodated.

Implementation

The pattern of funding for implementation follows one year behind that of activity planning at Levels 1 and 2: funding levels off in 1984, a year after the leveling off of activity planning. At Level 1, increases average $36 million per year through 1984. At Level 2, they average $29 million per year, but they continue through 1985 to compensate somewhat for the lower level of funding.

The Bureau can contract some implementation actions, but many must be implemented by Bureau personnel. What's more, when contracts are used, BLM employees must prepare and monitor them to assure their proper completion. Therefore, personnel ceilings increase at all three levels, although the rate of increase is lower than for funding.

Performance Summary
Implementation

Level 1	Level 2	Level 3
Implementation of recommended actions will be expeditious—within four years of activity plan completion—and comprehensive, providing resource management that includes service to the public (e.g., at this level valuable cultural resources will get on-site protection and interpretive facilities, and on-site assistance will be available to visitors).	Implementation of actions called for in activity plans will be accomplished within six years. Actions will begin to address emerging needs (e.g., periodic monitoring of a valuable archeological site would be possible for protection, but no on-site management or visitor-use facilities would be possible).	Implementation of actions called for in activity plans will take eight or more years. In some cases, conditions may change enough so that the recommended action, based on old plans, will no longer be relevant or timely. Actions will be based on most-critical needs (e.g., cattle guards near an archeological site to prevent damage to cultural resources).

The following table summarizes the total funding and personnel requirements at the three alternative levels by management categories. Similar tables at the end of Chapter 4 provide totals on a program-by-program basis.

Alternative Funding Levels by Management Categories

	Funding Requirements in Thousands (000) of 1980 Dollars					**Personnel Requirements** Full-Time Permanent Positions				
	FY 1981[1]	**1982**	**1983**	**1984**	**1985**	**FY 1981**	**1982**	**1983**	**1984**	**1985**
Level 1										
Service, Operations and Maintenance	136,500	208,100	227,900	255,600	287,800	2,600	3,650	4.020	4,350	4,670
Inventory	96,000	148,900	139,200	149,300	136,800	660	1,030	1,080	1,060	1,000
Planning	12,000	20,200	20,400	22,400	21,500	260	310	310	310	310
Activity Planning	44,300	59,800	66,300	65,900	70,600	1,050	1,280	1,360	1,380	1,460
Implementation	37,600	81,300	121,000	144,200	144,000	530	840	970	1,070	1,140
Level 2										
Service, Operations and Maintenance	136,500	185,900	201,900	224,800	249,000	2,600	3,340	3,650	3,950	4,220
Inventory	96,000	140,500	128,500	141,600	128,600	660	980	1,040	1,020	970
Planning	12,000	20,200	20,400	22,400	21,500	260	310	310	310	310
Activity Planning	44,300	56,100	62,900	62,400	65,900	1,050	1,200	1,290	1,290	1,340
Implementation	37,600	71,600	102,800	124,700	127,800	530	730	810	910	950
Level 3										
Service, Operations and Maintenance	136,500	171,300	184,200	197,800	211,000	2,600	3,110	3,340	3,560	3,740
Inventory	96,000	102,600	103,300	99,100	100,300	660	740	740	720	710
Planning	12,000	12,900	14,200	17,200	15,800	260	290	290	290	290
Activity Planning	44,300	54,500	57,100	52,900	54,900	1,050	1,070	1,090	1,090	1,110
Implementation	37,600	61,600	77,300	93,200	109,000	530	680	720	800	850

[1] President's FY 1981 Budget figure.

Programs of the Bureau of Land Management

4

4

This Chapter examines each of the Bureau's major programs and describes the program performance levels anticipated from alternative levels of funding. Each program discussion includes an outline of the current status of actions being taken as a result of existing problems and a statement of the issues raised by the public as well as those of concern within BLM and the Department. Some of these issues relate to current problems which may be responded to in a relatively short time. Others are long-term issues which will command the attention of both the public and BLM throughout the Four-Year Authorization period and beyond. The needs of both the long- and the short-term issues are reflected in the goal statement in each program discussion.

An overview of alternative levels of funding and staffing follows, with the estimated work products anticipated at each level. Finally, discussion of each program's relationship to others in the Bureau provides guidance for effectively setting priorities by further delineating the interconnections among programs.

The programs discussed in this Chapter are divided into six categories:

- Planning and Inventory Coordination
- Energy and Minerals Management
- Renewable Resource Management
- Recreation and Environmental Areas
- Lands and Realty Management
- Technical Support and Administrative Services.

Two additional sections—Receipts and Allocations and Other Funding Sources—complete the picture of BLM activities by describing the budget categories that depend on—and dispose of—funds generated by the development and use of public lands and resources, permanent appropriations, or appropriations for payments or loans to local units of government. Concerns that cut across program boundaries are discussed in a section entitled Issues in Management and Administration.

Planning and Inventory Coordination

Planning and Inventory Coordination

A principal mandate of FLPMA is its requirement that BLM prepare and maintain comprehensive inventories and plans for the public lands to guide management of public land resources. These plans are designed to assess the suitability of specific geographic areas to sustain a wide variety of uses and to analyze the effects of alternative uses and levels of use on the environment, on individuals, and on the economies of the communities in which they live. Throughout the planning process, BLM seeks broad public involvement—through its advisory boards, through individual contacts with affected individuals and organizations, and in some cases through special cooperative projects.

BLM actually began developing land management plans in the 1960's with multiple use and public participation as basic principles. With the passage of FLPMA, planning has intensified, as has the inventory work upon which plans are based. Major effort in resource inventory currently focuses on wilderness, soil, and vegetation data for rangeland management, timber, cultural resources, and wildlife habitat. To date, some 80 percent of the public land in 11 States is covered by land use plans.

The Bureau recently completed a two-year revision of its planning procedures to bring them in line with the detailed requirements of FLPMA. Special effort was made to coordinate the new planning procedures with those of the Forest Service in order to provide as many common features and terms as possible.The new planning regulations, published in final form on September 6, 1979, received a total of over eight months of public review and reflect the recommendations of a wide array of local, State, and Federal agencies, special interests, and individuals.

The new planning process is the core of resource management decision making in BLM. The eight major steps in the process, detailed in the September 6, 1979 regulations, are described below, organized under the management categories used elsewhere in this report.

Management Planning Analysis

Identification of Issues Issues, needs, and demands are identified with the help of the public, other Federal agencies, State and local goverments, and Indian tribes to focus inventory data collection and planning.

Development of Planning Criteria Standards are set for collecting data, establishing alternatives to be examined, developing criteria for evaluating alternatives, and selecting a preferred alternative. The planning criteria are published for comment before becoming part of the plan.

Inventory

Inventory Data Collection Resource, environmental, social, economic, and institutional data needed to prepare the plan are assembled.

Resource Management Planning

Management Situation Analysis The capability of the public lands to respond to identified needs and issues is determined.

Resource Management Alternatives Alternative choices ranging in emphasis from full resource protection to resource production and including continuing an activity at the current level are established. The alternatives must be responsive to the issues identified in the first step and to the planning criteria.

Effects of Alternatives The physical, biological, economic, and social impacts of each alternative are analyzed. The environmental impacts of each alternative are analyzed in accordance with Council on Environmental Quality regulations for the National Environmental Policy Act.

Selection of Preferred Alternative A preferred alternative is identified from the range of alternatives considered. An integrated draft plan and Environmental Impact Statement (EIS)—prepared by a District Manager and approved by the appropriate State Director—are then published for a 90-day comment period.

Resource Management Plan (RMP) The District Manager selects a final resource management plan after evaluating comments on the draft. The District Manager's decision is subject to review by the State Director before plan approval is final.

RMP's prepared through this process form the basis for decisions on the protection and management of critical areas and the allocation of resources between uses or levels of use, including:

- which wilderness study areas should be recommended as suitable or unsuitable for the National Wilderness Preservation System;
- which areas qualify for special attention as Areas of Critical Environmental Concern (ACEC's);
- which lands are suitable for coal leasing and development and which are not;
- how vegetation will be allocated for wildlife, wild horses, and domestic livestock use while protecting the soil and vegetative cover;
- which areas will be open to outdoor vehicle use;
- which lands are suitable for timber production;
- which areas should be considered for special land use planning coordination in conjunction with potentially affected Indian lands;
- and many others.

Current Status

Although the new regulations are now final, full implementation will be phased over the next four years to account for the different stages of plans already underway under the old procedures. Accordingly, on December 3, 1979, a notice was published in the *Federal Register* indicating those portions of the new regulations that will apply to ongoing studies. All plans begun in fiscal year 1981 and thereafter will be developed under the new regulations. Five of the plans which begin in fiscal 1980 will serve as pilot projects to develop and test planning procedures to implement the new regulations. In 1979, the Bureau also established a Resource Sciences staff, one of whose functions is to enhance the Bureau's ability to utilize applied scientific research in collecting inventory data and preparing Resource Management Plans.

Issues

As mandated by FLPMA, the new planning regulations require that BLM be consistent with the officially approved and adopted plans of State and local governments, among others, insofar as that would be consistent with Federal law and the purposes of FLPMA. They also provide for consistency with State and local policies and programs, unless they clash substantively with those of the Secretary of the Interior.

These are important new provisions. They provide a new level of commitment on BLM's part to cooperate with local governments, but they place a burden on State and local governments as well. Who will be the State focal point? How will differences among communities or between community plans and State plans be resolved? By what criteria will consistency determinations be made?

Another major issue identified through the consultation process was the need for the Bureau to ensure the timely availability of inventory data. Lack of current, accurate, and comprehensive data causes delays in decisions and program implementation, controversies regarding the adequacy of resulting decisions, and increases in conflicts concerning resource areas.

The Bureau Planning System is the basic device for conflict resolution, coordination, and priority setting for uses of the public lands. As such it plays a direct role in treating each of the major issues identified in the four-year authorization process, both for resource programs and for technical and administrative support programs. These individual issues are identified in each of the resource and support programs which follow.

Goals

The planning program has both initial and long-term goals. Initial goals are:

- to develop comprehensive multiple-use plans for the public lands that allocate resources wisely to various land uses;
- to compile sufficient inventory data to enable the Bureau to make timely and sound resource management decisions;
- to have the plans meet judicial, legislative, and administrative mandates for the forest, range, wilderness, and coal programs, among others;
- to ensure timely plan implementation; and
- to monitor and evaluate plan implementation to ensure effectiveness.

Over the longer term, FLPMA mandates that BLM maintain and update inventories and plans to provide a constantly current basis for decisions. Accordingly, long-term goals are:

- where appropriate, to add to the detail and accuracy of the inventories and to update existing data utilizing the contributions of applied scientific research;
- to revise plans on roughly a ten-year cycle and, in the process, to convert

where necessary from Management Framework Plans (developed under the old planning regulations) to Resource Management Plans;

- to implement these plans; and
- to continue to monitor and evaluate the effectiveness of these plans.

Finally, it is particularly important that the Bureau have the data base (both base information and trends), the plans (incorporating multiple-use and sustained yield principles and environmental and socio-economic analyses), and the analytical capability to be in a position to quickly understand and respond to new mixes of demands on the public lands and the Outer Continental Shelf.

Alternative Investment and Performance Levels

The Planning and Inventory Coordination program is responsible for conducting management planning analysis, coordinating the inventory activities of the Bureau's other programs, preparing resource management plans for each of the Bureau's resource management areas, and monitoring the implementation of adopted management plans. While each of these basic program activities will be performed at each funding level, the scheduling of the workload varies between Levels 1 and 2 and Level 3.

Investments

Funding in Thousands (000) of 1980 Dollars

	Requested Appropriation[1]	Existing Authorization[2]		Authorization Analysis			
	FY 1981	FY 1981	1982	FY 1982	1983	1984	1985
Level 1	14,172	13,571	13,571	23,345	23,684	26,006	25,324
Level 2	14,172	13,571	13,571	23,345	23,684	26,006	25,324
Level 3	14,172	13,571	13,571	16,145	17,564	20,906	19,724

Full-Time Permanent Positions

	Existing Ceiling[3]	Existing Authorization[2]		Authorization Analysis			
	FY 1981	FY 1981	1982	FY 1982	1983	1984	1985
Level 1	327	340	340	385	393	402	412
Level 2	327	340	340	385	393	402	412
Level 3	327	340	340	360	368	377	387

[1] Revised President's Budget
[2] BLM Four-Year Authorization for Fiscal Years 1979-1982
[3] Established by the Department of the Interior

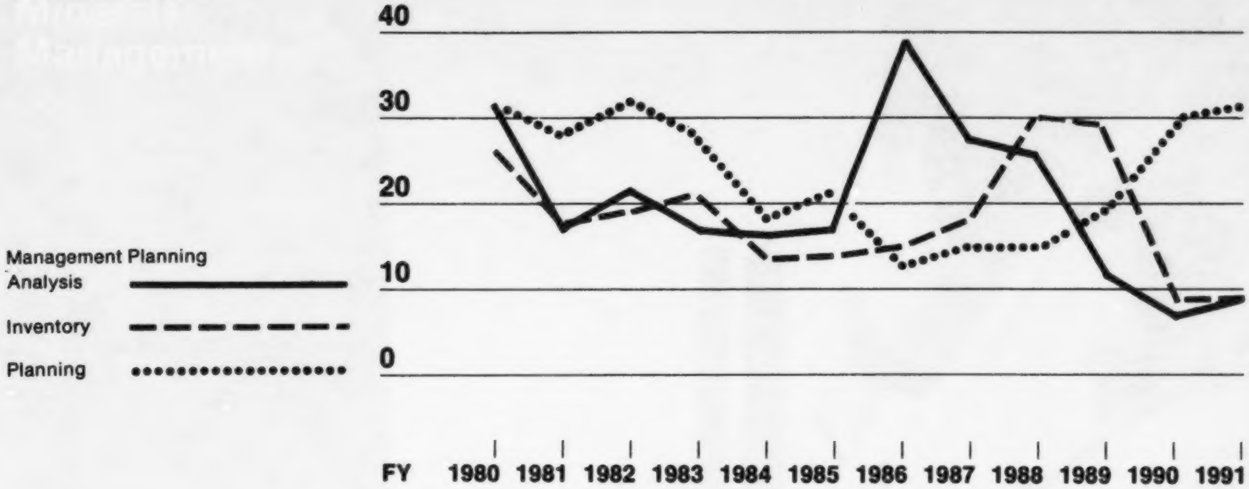
Performance

	Level 1	Level 2	Level 3
Service, Operations and Maintenance	The planning program is responsible for monitoring the implementation of adopted resource management plans to determine whether management planning objectives are being accomplished and whether plan amendments may be required to accommodate changing conditions or to meet new requirements or demands. This program component will be implemented at each funding level. As indicated by the detailed planning schedules in Appendix 2, approximately 100-130 management plans will be monitored annually.		
Inventory	While each of the Bureau's resource and support programs fund their respective inventory activities, the planning program is responsible for coordinating the compilation of inventory data. This entails, among other things, determining whether inventories are appropriately tailored to meet planning and management requirements and to encourage the preparation of multiple-resource inventories. This component of the program will be implemented at each funding level. The inventory work in approximately 30 to 40 resource management areas will be coordinated annually.		
Planning (includes management planning analysis, URA/MFP/EIS, and resource management planning)	The wilderness review schedule is accelerated so that the review required by section 6034 of FLPMA will be completed for the contiguous United States by 1987. This will reduce uncertainty about the ultimate use and management of the affected public lands and will shorten the period during which wilderness study areas will have to be managed according to the Interim Management Guidelines.		Activities will be performed according to resource planning schedules in Appendix 2. These schedules, developed in accordance with the recently adopted planning regulations, are designed to meet Executive, congressional, and judicial mandates for range and forestry EIS's, wilderness review, and coal leasing.
Activity Planning	Not Applicable	Not Applicable	Not Applicable
Implementation	Not Applicable	Not Applicable	Not Applicable

As can be seen from the accompanying graph, there is a cyclical pattern to the Bureau's inventory and planning schedules (see Appendix 2). Intensive inventory and planning on the public lands began to increase in 1978 and will continue at a high level through 1983 in response to such short-term mandates as the grazing and forestry EIS's and the coal leasing schedule. Data collected and plans prepared to satisfy these mandates will also complete the first phase of the comprehensive resource inventory and planning base for the public lands mandated by FLPMA. However, since the Bureau's planning regulations require that plans and inventories be revised at least every ten years, a second cycle of inventory and planning work will begin about 1988 and last until 1992. In this cycle, inventories and plans will be updated, and plans developed under the old regulations will be converted to the Resource Management Plan format wherever needed.

The sequential relationship between management planning analysis, inventory, and planning can also be seen, particularly during the second cycle, with management planning analysis peaking in fiscal year (FY) 1986, followed by inventory, which peaks in FY 1988-89, and finally by planning, which peaks in 1990-91.

Outputs Completed



The relative magnitude of the figures on the graph can be misleading. The figures used are simply the number of resource or planning areas covered for each category in each year. The cost of these activities presents a different picture. Inventory is the most costly activity, followed by planning. Management planning analysis is only a fraction of the total planning cost.

The second cycle of inventory, planning, and implementation will be less costly because the emphasis is on refining data and updating plans, rather than on producing totally new data and plans. However, the cost of the updating in the second cycle will depend on the funding level available during the first cycle. A lower level of funding in the initial inventory and planning cycle will produce products that may require more extensive and costly updates during the second cycle.

Relationship to Other Programs

Inventory and planning affects all of the Bureau's resource programs directly, and indirectly affects technical and administrative support programs. The nature of these relationships is explained in detail in each of the program discussions in this chapter.

Energy and Minerals Management

Energy and Minerals Management

Five separate energy and minerals programs are carried out by the Bureau of Land Management. They are distinguished by the type of the resources—energy or non-energy—and by location—onshore or offshore—with one exception. Coal is treated separately from other onshore, energy minerals. A comprehensive coal development program, including scheduled, competitive lease sales, has been established. As a part of the restructuring of the coal program, it was separated from the administration of other energy and minerals programs.

The onshore energy and non-energy minerals programs are made up of several components. The various minerals included under each program are managed under several different laws and are made available for development under several different leasing, and other, procedures.

The laws governing energy and minerals development on the public lands range from the 1872 Mining Law, embodying very early philosophies regarding the rights to mineral resources and their role in the economic development of the West, to new laws which recognize the importance of expanding and diversifying the Nation's energy sources, such as the Geothermal Steam Act of 1970 and the OCS Lands Act Amendments of 1978. Other laws enacted during the last decade have had a significant impact on the manner in which energy and minerals programs are administered, laws such as the National Environmental Policy Act, the Endangered Species Act, and the Surface Mining Control and Reclamation Act. The mandates of FLPMA reflect the environmental issues and problems addressed in these laws and give the Secretary broad surface protection responsibilities related to the public lands. These mandates also directly affect the management of the public lands' energy and minerals resources.

ONSHORE ENERGY - COAL

The Federal government owns an estimated 60 percent of the coal resources in Colorado, Montana, New Mexico, North Dakota, Utah, and Wyoming. At the close of fiscal year 1979, 546 leases covered a total of 799,250 acres containing an estimated 17.3 billion tons of coal.

In May 1977, President Carter instructed the Secretary of the Interior to increase coal production in areas where mining would be environmentally acceptable and compatible with other land uses. In response to this directive, the basic objective of the Federal coal program is to lease Federal lands for the development of coal in a manner that fully protects the public interest and the rights of surface owners.

In 1971, after completing a year's study of Federal coal leases, the Department of the Interior halted the issuance of coal leases and prospecting permits (which could lead to a lease if coal were found in commercial quantities) to reassess leasing policies. The study showed that the acreage under lease on the public domain was rapidly increasing while production from Federal leases was decreasing, suggesting heavy speculative leasing. Acreage under lease had increased from about 80,000 acres in 1945 to 778,000 acres in 1970, while production during this period had declined from about 10 million tons per year to 7.4 million tons per year.

In 1977, the Interior Department's effort to renew competitive coal leasing was delayed when the Natural Resources Defense Council (NRDC) obtained a court injunction against the Department's proposed new leasing program. NRDC charged that the Department's 1975 Environmental Impact Statement (EIS) on that proposed program was inadequate. A settlement was negotiated and an amended court order was issued on June 14, 1978, allowing some short-term leasing for existing mines to meet contracts, to prevent the bypass of Federal coal, for specific hardship cases, and for the processing of 20 preference right lease applications (PRLA's) that would cause the least environmental impact. The suit, *NRDC* v. *Hughes*, halted all other new coal leasing until a supplemental EIS was prepared and a new program was adopted by the Secretary of the Interior.

In April 1979, a final programmatic EIS was issued and on June 4, 1979, the Secretary of the Interior announced a new program for competitive leasing of Federal coal. Its legislative base lies in the Mineral Leasing Act of 1920, as amended, the Federal Coal Leasing Amendments Act of 1976, FLPMA, the Surface Mining Control and Reclamation Act, the National Environmental Policy Act, the Department of Energy Organization Act, the Clean Air Amendments, and a series of court decisions. It is also the product of much consultation with other Federal agencies, State and local governments, Indian tribes, the coal industry, and environmental organizations. Regulations to implement the new coal program were published on July 19, 1979 (43 CFR 3400).

The new program is designed to provide for competitive Federal coal leasing in an environmentally safe and economically efficient manner, and in response to demand. BLM's comprehensive land use planning process is used to identify areas acceptable for further consideration for coal leasing, and leasing terms will be developed to ensure that fair market value is received. To qualify for consideration, the areas must have a medium or high coal development potential, pass 20 environmental suitability tests, and contain no other resource values greater than the coal values. If surface mining is contemplated where the coal is owned by the Federal government and the surface by a private individual, prospective lessees must secure the surface owner's approval of the surface mining. Once a land use plan is completed in an area, the leasing process follows six basic steps:

- Expressions of coal leasing interest are requested;
- Tracts are delineated (mining units) and site-specific environmental and socio-economic assessments are prepared on the delineated tracts;
- Preliminary leasing targets are formulated and the scope of the EIS is defined, with public comment;
- Tracts are ranked by Federal/State regional coal team (RCT);
- A final regional lease target is established and tracts are selected by the RCT for study; and
- An EIS is prepared with public participation and consultation.

The regional leasing targets are set to respond to the Department of Energy's production goals, including production and tract configurations required to meet synfuel plant needs. The targets are established by the Secretary of the Interior after considering the advice of State and local governments, the coal industry, and the public. Land use planning for potential leasing of federally owned coal utilizes regional leasing targets in setting priorities and future planning schedules. The Federal-State regional coal team uses the targets to select tracts and to develop a lease schedule for the offering of the selected tracts.

Current Status

The first round of leasing under the new program is scheduled for January 1981 in the Green River-Hams Fork (Colorado and Wyoming) Region and for mid 1981 in the Uinta-Southwestern Utah (Utah and Colorado) Region and the Alabama Subregion. BLM and the Forest Service completed land use plans for these lease sale areas in fiscal 1979. This planning included application of unsuitability criteria to eliminate conflict areas, consideration of other resource values, consultation with surface owners, and identification of acceptable leasing areas for these proposed lease sales.

The existing four-year schedule also includes sales in the Powder River, Western Interior, Fort Union, San Juan River, and Denver-Raton Mesa coal regions.

In fiscal year 1979, BLM held 16 lease sales and issued 14 leases for over 72 million tons of coal under a "short-term" (emergency) leasing program developed through a modification of the original *NRDC* v. *Hughes* court order. The new coal program also includes provision for this type of leasing on application, but the need for such leasing is expected to diminish as the regional coal leasing process is implemented. Thus far in FY 80, 11 lease sales have been held in response to emergency coal lease applications.

The Bureau also has begun a study to identify the impacts of mining and transporting coal from the Kaiparowits Plateau in Utah on nearby National Parks and other resource and socioeconomic values. The National Park Service, the Forest Service, and the State of Utah are cooperating in the study. A report is due in the summer of 1980.

Coal trespass, or the illegal mining of Federal coal, is a major concern for the Bureau. During fiscal year 1979 BLM investigated 50 cases of suspected coal trespass in Alabama and three in Maryland, in areas where the Federal government owns the subsurface mineral rights while the surface is privately owned. As a result of the investigation, 31 cases were closed because no unauthorized mining had actually occurred. One case was closed after the defendent paid trespass damages. Twenty-one cases are either still being investigated or are under review. In five of these cases, formal trespass notices have been issued and action is pending. BLM has instituted a coal trespass detection program consisting of the comparison of aerial photographs, orthophoto maps, land use maps and other data sources with maps showing Federal coal ownership to determine if surface disturbance indicating possible coal mining is present on those lands. Field inspections of possible trespass sites identified through this comparison process are then conducted to determine if coal trespass has, in fact, occurred. The BLM is revising the mineral trespass regulations and manual to incorporate current authorities and responsibilities. Proposed regulations were published in March 1980.

Issues

The adoption of the new Federal coal management program in 1979 resolves a major public concern that policies, programs, and schedules for the development of Federal coal reserves are constantly shifting. While minor adjustments may be necessary, the new program will alleviate the uncertainties that have existed for several years.

Another issue of long standing is the processing of preference right lease applications (PRLA's), many of which have been on file with the Bureau for years. The 1971 leasing moratorium, and subsequent court actions, held up PRLA processing, but the Bureau expects to complete PRLA processing by the December 1, 1984 deadline set by the Secretary. The Bureau has issued instructions to its field offices to speed PRLA processing and to clarify such problems as how to handle PRLA's on lands where mining claims had been filed before prospecting permits were issued.

The stringent provisions of FLPMA, the Surface Mining Control and Reclamation Act, and other new laws and regulations increase the urgency of completing readjustments of the terms of existing coal leases expeditiously. Particularly important are readjustments of producing coal leases. Delays in such leases, which may pay substantially lower royalty rates to the Federal government, may result in substantial loss of revenue to the Treasury.

On the other hand, the minimum royalty rates established by the Federal Coal Leasing Amendments Act of 1976 appear to be higher than the traditional rate for privately owned coal in the East. The Bureau is working with the Department in considering this issue and will recommend legislative changes, if appropriate.

Another eastern problem is the Bureau's current inability to respond to demands for development of Federal holdings within National Forests and other federally administered lands. Because these holdings have never been fully inventoried, there is no firm schedule for land use plan development or the development of leasing schedules except in Alabama. In order for leasing to proceed responsibly, rather than on an application by application basis, the surface management agencies (primarily BLM and the Forest Service) need to accelerate land use planning in anticipation of coal development demand.

Finally, the Bureau needs to continue its eastern inventory and mapping programs—and to be provided with adequate support for monitoring, investigation, and enforcement—in order to ensure against any further Federal coal trespass in the East.

Goals

The major goals of the Bureauwide coal program are:

- To meet the Secretary's goals of increasing Federal coal production by completing BLM and Forest Service plans by 1985 on lands containing an estimated 30 billion tons of coal. These lands will then be available to be considered in activity plans for leasing to meet increased coal demand. If leased and mined, this coal could conceivably result in doubling the current annual total U.S. production, on Federal lands alone, by the mid- to late 1990's.
- To make Federal coal resources available where development is consistent with land use planning and reclamation potential is favorable.
- To lease coal on a federally initiated basis which will allow long-range scheduling of land use planning and competitive lease sales.
- To complete processing of outstanding PRLA's by December 1, 1984.
- To meet known short-term coal needs by expeditiously processing hardship lease applications defined in the *NRDC* v. *Hughes* court order and by leasing coal under emergency provisions needed to maintain existing operations and federally bypassed tracts.
- To establish proper and clear procedures for responding to protests on coal lease readjustments in a timely manner.
- To investigate and resolve all Federal coal trespass cases and take all necessary actions to prevent future trespass.
- To encourage and provide opportunities for other Federal agencies, State and local governments, and affected and interested groups and individuals to understand and participate in the Federal coal management program.
- To help affected communities plan for and minimize social and economic impacts of Federal coal lease sales.
- To provide special opportunities for public bodies, small businesses, and those who are economically disadvantaged by setting aside lease tracts specifically for those entities.

Alternative Investment and Performance Levels

Because of the priority accorded the Federal coal management program, and in order to meet the four-year coal leasing schedule, the coal program is proposed to be funded and staffed at the same level under the Bureauwide Levels 1 and 2, and at a very similar level under the Bureauwide Level 3.

Investments

Funding in Thousands (000) of 1980 Dollars

	Requested Appropriation[1]	Existing Authorization[2]		Authorization Analysis			
	FY 1981	**FY 1981**	**1982**	**FY 1982**	**1983**	**1984**	**1985**
Level 1	27,617	29,258	31,748	30,870	33,345	33,389	35,048
Level 2	27,617	29,258	31,748	30,870	33,345	33,389	35,048
Level 3	27,617	29,258	31,748	29,545	29,892	30,692	31,323

Full-Time Permanent Positions

	Existing Ceiling[3]	Existing Authorization[2]		Authorization Analysis			
	FY 1981	**FY 1981**	**1982**	**FY 1982**	**1983**	**1984**	**1985**
Level 1	378	275	300	429	429	429	429
Level 2	378	275	300	429	429	429	429
Level 3	378	275	300	429	429	429	429

[1] Revised President's Budget

[2] BLM Four-Year Authorization for Fiscal Years 1979-1982

[3] Established by the Department of the Interior

Performance

<table>
<tr><th></th><th>Level 1</th><th>Level 2</th><th>Level 3</th></tr>
<tr><td>Service, Operations and Maintenance</td><td>A total of 247 lease applications and PRLA's will be processed, 25 leases exchanged, and 429 lease adjustments, assignments, modifications, and mining plan reviews will be processed. The Secretary's target of completing action on all outstanding PRLA's by December 1, 1984, will be met.</td><td>A total of 247 lease applications and PRLA's will be processed, 25 leases exchanged, and 429 lease adjustments, assignments, modifications, and mining plan reviews will be processed. The Secretary's target of completing action on all outstanding PRLA's by December 1, 1984, will be met.</td><td>A total of 242 lease applications and PRLA's, 14 exchanges, and 423 lease adjustments, assignments, modifications, and mining plan reviews will be processed. Additional accomplishments in these areas will be constrained by the number of environmental analyses completed.</td></tr>
<tr><td></td><td colspan="3">At all levels, the Federal coal management program schedule for regional lease sales will be met. Nine sales will be held through FY 1984, pursuant to this schedule, if demand for Federal coal warrants them, with an estimated additional two sales scheduled in FY 1985.</td></tr>
<tr><td>Management Planning Analysis[1]</td><td>Not Applicable</td><td>Not Applicable</td><td>Not Applicable</td></tr>
<tr><td>Inventory</td><td colspan="3">At all levels, inventories required to complete land use and activity planning for scheduled sales will be completed. Inventories will be performed for 15.2 million acres.</td></tr>
<tr><td>Planning[1]</td><td>Not Applicable</td><td>Not Applicable</td><td>Not Applicable</td></tr>
</table>

Activity Planning	Seventy-six site-specific EIS's will be completed in order to complete processing of lease applications, PRLA's, lease exchanges, and lease modifications. A total of 11 activity plans, including regional EIS's, will be completed in order to meet the Federal coal management program sale schedule.	Seventy-six site-specific EIS's will be completed in order to complete processing of lease applications, PRLA's, lease exchanges, and lease modifications. A total of 11 activity plans, including regional EIS's, will be completed in order to meet the Federal coal management program sale schedule.	Sixty-one site-specific EIS's will be completed in order to complete processing of lease applications, PRLA's, lease exchanges, and lease modifications. A total of 11 activity plans, including regional EIS's, will be completed in order to meet the Federal coal management program sale schedule.
Implementation	Not Applicable	Not Applicable	Not Applicable

---

[1] Performance outputs for these elements are multi-resource in nature and are described under *Planning and Inventory Coordination.*

Workloads/Outputs

Regional Coal Sales

FY	1981	1982	1983	1984	1985
Level 1	3	2	3	4	2[1]
Level 2	3	2	3	4	2[1]
Level 3	3	2	3	4	2[1]

Unsuitability Petitions[4]

FY	1981	1982	1983	1984	1985
Level 1	4	4	4	4	4
Level 2	4	4	4	4	4
Level 3	4	4	4	4	4

Leases & PRLA's[2]

FY	1981	1982	1983	1984	1985
Level 1	79	73	64	72	38
Level 2	79	73	64	72	38
Level 3	79	73	61	71	37

Lease Exchanges[2]

FY	1981	1982	1983	1984	1985
Level 1	3	5	6	6	8
Level 2	3	5	6	6	8
Level 3	3	3	3	3	3

Lease Adjustments and Modifications, Mining Plan Reviews and Assignments[2]

FY	1981	1982	1983	1984	1985
Level 1	137	127	100	100	100
Level 2	137	127	100	100	100
Level 3	137	127	98	99	99

Land Use Inventory
in Thousands (000) of Acres

FY	1981	1982	1983	1984	1985
Level 1	2,600	5,200	3,300	3,300	3,400
Level 2	2,600	5,200	3,300	3,300	3,400
Level 3	2,600	5,200	3,300	3,300	3,400

	Activity Plans/Regional EIS's[3]						Site-Specific EIS's					
	FY	1981	1982	1983	1984	1985	FY	1981	1982	1983	1984	1985
Level 1		3	3	3	3	2		14	19	19	19	19
Level 2		3	3	3	3	2		14	19	19	19	19
Level 3		3	4	3	3	2		14	17	13	16	15

---

[1] Estimated number of sales for FY 1985; no sales have been scheduled to date for FY 1985.

[2] The actual number of these cases to be processed cannot be determined in advance since the Bureau will be responding to applications. These figures represent the Bureau's best estimate at the time of this publication. The number of applications shown for Levels 1 and 2 are the estimated number to be received, all of which could be processed at these levels. The number of applications shown for Level 3 represents the estimated number of applications received which could be processed at that level.

[3] These figure represent the number of activity plans to be completed in each fiscal year. An activity plan takes approximately 2 years to complete.

[4] BLM is required to make recommendations to the Office of Surface Mining concerning unsuitability petitions. BLM has very little experience concerning these petitions; however, it appears that they may require a considerable expenditure of work months and funds to process. These figures represent an estimate of the number of petitions to be received.

As can be seen by the above, Level 3 differs from Levels 1 and 2 in the number of over-the-counter lease applications, PRLA's, and lease exchanges processed, principally because the required environmental analyses to support these activities are constrained at Level 3.

Relationship to Other Programs

The Federal Coal Leasing Amendments Act of 1976 requires that a land use plan or a land use analysis be prepared prior to leasing and that leasing be compatible with the plan or analysis. As a part of this support requirement, inventories must be completed for other (non-coal) resources as well. These requirements are addressed under the Planning and Inventory Coordination discussion in this document.

In addition, Cadastral Survey support is required to support the leasing and trespass components of this program. The trespass support requirements are concentrated primarily in the eastern States. Some survey support for leasing will be required in all of the major western coal States to identify property boundaries on the ground.

Support will also be required from the Lands and Rights-of-Way programs to obtain or guarantee access to Federal coal leases. BLM is currently completing a study of coal-related access needs.

The Federal coal management program involves several agencies within the Interior Department as well as additional agencies from other Departments. The principal agencies within Interior, in addition to BLM, are the Office of Surface Mining, the Geological Survey, and the Fish and Wildlife Service. The Department of Agriculture-Forest Service and the Departments of Energy and Justice are principal non-Interior agencies involved. The above agencies must program for and receive funding and positions to enable them to support the BLM Federal coal leasing management program, if the program is to be implemented in an effective and timely manner. For example, BLM is dependent on the Geological Survey for coal inventory data (drill hole data), for coal resource economic evaluations, and for hydrologic data and information. Data and information from the Fish and Wildlife Service is needed concerning fish and wildlife for inventory and planning. The National Park Service cooperates with BLM and the Forest Service where potential coal leasing areas border the lands under National Park Service jurisdiction. The Office of Surface Mining is responsible for mine permitting, as well as for processing citizen petitions for designating areas as unsuitable for mining under the Surface Mining Control and Reclamation Act. The Office of Surface Mining provides information and advice on reclamation to BLM for consideration in BLM's leasing activities, while BLM provides land use planning information to the Office of Surface Mining for processing of unsuitability petitions. While BLM provides funding to other Interior agencies for data collection efforts and technical investigations, it does not provide funding for their participation in efforts related to regional coal leasing environmental impact statements. The Department of Energy determines production goals and the Forest Service conducts land use planning on lands under their administration.

ONSHORE ENERGY OTHER THAN COAL

Oil and Gas Under the terms of the Mineral Leasing Act of 1920 and the Mineral Leasing Act for Acquired Lands of 1947, BLM is responsible for oil and gas leasing on about 520 million acres of public lands and national forests, acquired land, and private land where mineral rights have been retained by the Federal government.

The U.S. Geological Survey (USGS) estimates that the Nation's oil reserves amount to about 35 billion barrels, of which about 90 percent are onshore and 4.5 percent are on Federal lands. Total remaining recoverable gas reserves are estimated at 208 trillion cubic feet, of which 83 percent are onshore and 6.1 percent are on Federal lands. In fiscal year 1979, 11,356 leases were issued for slightly less than 13.0 million acres of which 71,422 acres were leased competitively. Production on Federal lands in fiscal year 1979 was 443.1 million barrels of oil and 5.6 trillion cubic feet of gas. Wyoming, Utah, New Mexico, Colorado, and Montana are the States with the greatest amount of Federal leasing.

Competitive leases, provided for under the Mineral Leasing Act, are issued on lands that the Geological Survey designates as within a Known Geological Structure (KGS). Such leases cover a maximum of 640 acres and have a primary term of five years. If production is established, they may be extended. The annual rental is $2 per acre and a royalty of from 12.5 to 25 percent is charged for production wells.

Noncompetitive leases, also provided for under the Mineral Leasing Act, are issued on lands outside a KGS to the first qualified applicant. Such leases cover a maximum of 2,560 acres and are renewable annually at $1 per acre for a total of 10 years unless production is established. A royalty of 12.5 percent is charged on producing wells. Roughly 97 percent of the land offered for leasing is outside a KGS and is therefore leased noncompetitively.

Noncompetitive leases that have not been previously leased are granted "over the counter." Noncompetitive leases that have been surrendered by a lessee are reoffered in the month following their release through the simultaneous oil and gas leasing system. Through this system, three applications are drawn from all the applications filed for the available block. They are examined in the order in which they are drawn, and the lease is issued to the first qualified applicant.

Onshore oil and gas leasing and development are closely coordinated between BLM and USGS. Generally, BLM issues leases and integrates the leasing use with other land uses. USGS designates lands that are within a KGS and supervises the drilling and production phases, including collection of royalties.

Oil Shale The 25,000-square-mile Green River formation, of which approximately 83 percent is located in northwestern Colorado and the remainder in adjacent portions of Utah and Wyoming, contains oil shale with an estimated 731 billion barrels of commercially developable shale oil. The total estimated potential is nearly two trillion barrels. Roughly 80 percent of this oil shale is on Federal land.

The Mineral Leasing Act of 1920 provided authority to lease Federal oil shale lands; however, in the absence of commercial prospects, these lands were withdrawn from leasing in 1930. One lease sale was held in 1974 as a part of the Department's Oil Shale Prototype Leasing Program. The objectives of this program, among others, were to issue a limited number of leases in order to stimulate the development of commercial oil shale technology by private industry and, at the same time, to develop the environmental safeguards and management expertise in oil shale leasing and supervision that are necessary to foster an oil shale industry in the future.

As a result of the 1974 sale, four leases were issued—two in Utah and two in Colorado. Development of the Colorado leases is proceeding, but development in Utah was suspended because of litigation over whether the State of Utah had the right to claim the land. The Supreme Court recently decided the case, reaffirming the Secretary's discretionary authority.

Geothermal The geothermal industry is in its infancy and most production which is occurring is on private land, notably in the California Geyser Field. However, some 65 percent of the known or potential geothermal resources of the Nation are on Federal land.

Responsibility for the development of geothermal energy is shared by the Departments of Energy and the Interior. Loan guarantees and research funds are provided by the Department of Energy. Within Interior, BLM and the Geological Survey work together with other Federal agencies, State and local governments, industry, and other interested parties to carry out a Federal geothermal leasing program. The Bureau issues geothermal leases and licenses for geothermal power plants on Federal lands and collects rentals for Federal leases. It conducts both pre-lease-sale and post-lease-sale environmental studies and is responsible for monitoring and enforcement pertaining to surface protection. The Geological Survey assists in determining the fair market value of resources and supervises actions taken under leases and licenses to insure conservation and maximum feasible production. The Department of the Interior's responsibilities for geothermal leasing and development are defined by the Geothermal Steam Act of 1970.

Within known geothermal resource areas, competitive leases are issued, based on bonus bidding. Lease sizes vary from 640 to 2,560 acres. Competitve leases are issued for 10-year terms which may be extended in increments of 40 years if production is established. A 10 to 15 percent royalty is charged.

Outside of known geothermal resource areas, 10-year noncompetitive leases are issued to the first qualified applicant. If the lease is for a direct use such as crop drying, space heating, or distillation of gasohol, rather than for electricity generation, leases smaller than 640 acres may be issued.

Since geothermal leasing began in 1974, 2.8 million acres have been leased for geothermal development, 400,000 acres in fiscal year 1979. Applications covering another four million acres are pending. Seventy-six wells have been drilled on Federal land. Thirty-three have been found to be capable of producing; two are currently producing and the rest are shut in pending development of commercial markets and generating facilities. California, Idaho, Nevada, Utah, and Oregon are the states receiving the most interest in geothermal development.

Uranium Uranium on all non-acquired Federal lands is available under the Mining Law of 1872. The procedures for development of mineral resources under this law are discussed in detail under the Non-Energy Minerals (Onshore) section. On acquired Federal lands, uranium may be leased non-competitively to the first qualified applicant.

In addition to the leasing and other authorities discussed above, Congress reiterated the Federal policy toward mineral development in the Mining and Mineral Policy Act of 1970. That Act indicates a continued policy of encouraging private enterprise in all aspects of mineral development, recycling, and reclamation, including the development of economically sound and stable mineral-related industries.

Tar sands Tar sands are bituminous (oil-impregnated) sands and constitute the largest known, non-fluid petroleum resource in the U.S. Ninety-five percent of these sands occur in Utah (500,000 acres) and 65 percent of these are on Federal lands. Tar sand leases are authorized by the Mineral Leasing Act of 1920. However, because tar sands cannot be physically or chemically delineated from conventional oil and gas at certain viscosities, no tar sand leases have been issued since 1965.

Solar and Wind The Department of Energy has responsibility for providing research funds and loan guarantees and developing other measures to stimulate the development of non-conventional energy sources such as solar and wind projects. However, the Bureau's policy is to cooperate in these ventures to reduce the Nation's dependence on foreign energy sources. Presently, the Bureau is cooperating with the State in monitoring wind potential on 18 sites in the California Desert Conservation Area.

Current Status

Oil and Gas There are a number of long-standing problems associated with the current oil and gas leasing system. Non-competitive leasing at fixed fees and rentals generally below fair market value have encouraged the speculative tying up of acreage, impeding full-scale exploration. Assignability of Federal oil and gas leases, which allows retention of overriding royalties by speculators and for fragmentation of leases into parcels as small as 40 acres, has also contributed to speculation. In addition, weaknesses in the simultaneous leasing system have made potential abuses difficult to police and have led to as many as 500 charges of fraud or irregularity a year.

Several actions are currently being taken to correct these problems. The Secretary of the Interior suspended simultaneous oil and gas leasing on February 22, 1980. Prior to that action, the Bureau proposed regulations, published in the *Federal Register* on September 28, 1979, to revise the simultaneous oil and gas leasing procedures. Provisions considered include holding simultaneous drawings at longer intervals to allow for the assembly of attractive drilling blocks; prohibiting prior agreements; requiring personal signatures on critical documents; and increasing rentals. Following suspension of simultaneous oil and gas leasing, additional reforms to control assignment of leases and to provide clear warning of penalties for abuse were ordered by the Secretary. He also called for automation of the system. In addition, the Secretary has forwarded to Congress the Administration's bill to reform the current system and expand competitive leasing. This bill was introduced as S. 1937 by Senator Henry M. Jackson. Simultaneous oil and gas leasing will be reinstituted on June 16, 1980, and will be regularly monitored for abuses.

There is currently a backlog of over 7,000 applications for oil and gas leases. Much of this backlog results from applications for lease of oil and gas underlying Forest Service lands, which have been held up pending wilderness reviews. These applications have been recently released to BLM for action. This backlog also reflects an increased interest in oil and gas leasing and exploration and development. There has been a 300 percent increase in simultaneous oil and gas filings Bureauwide since 1974. This increase is also reflected in increased applications to drill, which are granted by the Geological Survey, but reviewed by BLM. For example, BLM's New Mexico State Office had a 100 percent increase in such applications in 1979.

On January 28, 1980, the President forwarded to Congress proposed legislation concerning establishment of the Western Arctic Management Area for the National Petroleum Reserve in Alaska. This legislation would give the Bureau of Land Management the responsibility of managing this area under the principles of multiple use. It would also provide for accelerated leasing of oil and gas resources and would create four special management areas within the reserve.

Oil Shale As previously indicated, no oil shale leasing has taken place since 1974. On May 27, 1980, the Under Secretary of the Interior announced his decision to expand the prototype leasing program by leasing up to four additional tracts and directed that a permanent leasing program be developed. At least one of the new prototype leases will be delineated to encourage multi-mineral development.

In addition, in 1979 the Oil Shale Environmental Advisory Panel, which was chartered in 1974 and became inactive in 1978, was reactivated. The panel will provide advice to BLM and the Geological Survey on the prototype leases.

Geothermal The Department of Energy has established a production goal for geothermal energy for the year 2000. To meet the goal, it is estimated that a total of 40 million acres must be leased by 1995. If half of this goal were to be met on Federal lands, it is estimated that an average of over 1.3 million acres would need to be leased annually for geothermal energy between now and 1995. In fiscal year 1979, 400,000 acres were leased. However, there are currently 1800 applications pending covering 4 million acres.

The Congress is currently considering legislation covering geothermal resource development. The Administration supports several key provisions of the bill—H.R. 6080, the Geothermal Steam Act Amendments of 1979. These include (1) modification of the definition of "known geothermal resource area" (although the Administration has also expressed its strong desire to include competitive interest as one criterion); (2) phased environmental assessment, allowing leasing on the condition that eventual approval may be withheld on the basis of subsequent environmental analysis (a current management policy); (3) definite timeframes as goals for processing lease applications;

and (4) enhanced diligence goals.

Tar Sands The Department has developed a legislative proposal to permit the leasing of tar sands under a combined (tar sands/oil and gas) hydrocarbon lease. This will help to avoid the controversy over the nature of the resources leased and the rights to leased resources. The Bureau is also developing a proposal for a tar sands leasing program. Current options include leasing under the proposed legislation and leasing under current legislation. A Secretarial decision is expected in late summer, 1980.

Other With the exception of cooperative monitoring projects previously indicated for wind energy, there are no ongoing or pending actions concerning other energy sources on Federal lands. The use of the California Desert Conservation Area for wind-generated energy is considered in the draft management plan for that area.

Issues

Two closely related and highly visible issues are the need for reform in the simultaneous oil and gas leasing system and the debate over whether existing non-competitive oil and gas leasing procedures should be made more competitive or even converted to a fully competitive system. As discussed under Current Status above, efforts are underway both within BLM and the Department and in Congress, to reform oil and gas leasing procedures. The Secretary suspended simultaneous oil and gas leasing pending revisions in the procedures; simultaneous leasing will be reinstituted on June 16, 1980. In addition, Congress is currently considering legislation to reform the current system and to expand competitive leasing.

An important constraint on the production of oil, gas, and geothermal energy on public lands and an issue of major public concern is the backlog in lease applications. This backlog is a result of the limited number of adjudicators available to process applications, and has been exacerbated by a marked increase in applications and the fact that many applications for leasing on Forest Service lands have been held up as a result of the Forest Service's RARE II (wilderness review) program.

Legislation currently under consideration proposes placing the National Petroleum Reserve in Alaska (which would be renamed the Western Arctic Management Area) under BLM management for multiple uses, including oil and gas development. If the legislation is enacted, a private oil and gas leasing program will be established in the Reserve. Specific provisions of the legislation, as well as the multiple-use planning requirements of the Bureau, will require and provide for protection of wildlife resources, archeologic and cultural resources, and subsistence resources and other interests of Alaskan Natives. Four special management areas would be established to protect unique wildlife resources. It is assumed here that any legislation for the Western Arctic Management Area will include specific authorizations for required funding; therefore, costs for this program element have not been included in this report.

A major challenge and opportunity for the Bureau in the next decade is how best to encourage the development of non-conventional energy sources on public lands. These energy sources range from geothermal and oil shale, for which the Bureau has limited, but established programs, to direct solar, wind, and biomass energy. Where proposals have been made to use public lands for the testing or development of these other energy sources, the Bureau has cooperated with proposed initiators. However, BLM does not have an active program involving renewable energy development. The Bureau's

Lands and Rights-of-Way program would be centrally involved since use of public lands for these purposes would require a use authorization. Opportunities also exist to increase the development of small hydroelectric facilities, to utilize coal in non-conventional forms (coal gasification), and to extract oil from tar sands. A central and frequently expressed concern of the public is the wide array of social, economic, and environmental impacts—as well as the technical uncertainties—associated with development of oil shale and tar sands, a concern that will be addressed by BLM as prototype programs and specific projects proceed.

Several additional issues were raised by the public during the consultation process, including management of energy resources within Alaskan State and Native conveyances; the need to increase coordination with tribal, State, and other Federal agencies on research, leasing procedures, and development plans; and the need to assess and facilitate transportation of energy, especially where it is produced in locations remote from markets. Additional environmental and resource-use-conflict issues related to the development of onshore energy are environmental problems created by the proliferation of mineral access roads and vehicle tracks and prohibition of seismic surveys in roadless (wilderness study) areas.

Goals

- To eliminate or significantly reduce energy case backlog.
- To expand oil and gas and geothermal leasing in order to contribute to meeting the Department of Energy's production goals.
- To lease additional oil shale tracts in Utah and Colorado.
- To begin tar sand leasing.
- To promote development on existing leases.
- To continue and expand cooperation in solar, wind, and other renewable energy projects on public lands.
- To complete an inventory of eastern Federal mineral holdings.

Alternative Investment and Performance Levels

The matrix which follows indicates achievements at each of the alternative funding and position levels. The number of leases issued under each level is dependent upon adjudication and upon the amount of environmental assessment which can be performed. Environmental assessments are in turn dependent upon inventory data. Information gathered under the inventory category, indicated as support inventorying, is largely that required to support environmental assessments, and not mineral inventories or inventories in support of initial land use planning. The acreage indicated does not represent the total number of acres on which one inventory is performed. Some areas may be inventoried for several resources, and the acreage involved each time is included in the total. At Levels 1 and 2 mineral surveys will be conducted by BLM to supplement those performed by the Geological Survey. This would be done to accelerate the wilderness review process and complete studies by 1987, rather than 1991, which is the deadline under the current schedule.

Meeting the goals of this program in an effective and efficient manner is dependent not only upon funding allocated to the program. The Bureau must continue to make special efforts to attract and retain skilled specialists (geologists, mining engineers, adjudicators) because of the competition for these specialists both within and outside of the federal sector. Providing full-time permanent positions is one of the steps necessary to attract and keep such specialists.

Investments

Funding in Thousands (000) of 1980 Dollars

	Requested Appropriation[1]	Existing Authorization[2]		Authorization Analysis			
	FY 1981	**FY 1981**	**1982**	**FY 1982**	**1983**	**1984**	**1985**
Level 1	16,541	19,298	20,542	26,977	28,020	32,342	38,337
Level 2	16,541	19,298	20,542	25,094	25,619	29,905	34,272
Level 3	16,541	19,298	20,542	18,359	18,430	20,776	23,843

Full-Time Permanent Positions

	Existing Ceiling[3]	Existing Authorization[2]		Authorization Analysis			
	FY 1981	**FY 1981**	**1982**	**FY 1982**	**1983**	**1984**	**1985**
Level 1	336	492	512	508	535	579	660
Level 2	336	492	512	460	493	534	585
Level 3	336	492	512	333	330	365	395

[1] Revised President's Budget
[2] BLM Four-Year Authorization for Fiscal Years 1979-1982
[3] Established by the Department of the Interior

Performance

	Level 1	**Level 2**	**Level 3**
Service, Operations and Maintenance	Between 15,575 and 20,360 leases, mostly oil and gas, will be issued annually, representing increases of 25 percent to 60 percent over leases issued in FY 1979. The existing backlog in oil and gas lease applications will be eliminated by FY 1975. Two tar sands and four oil shale lease sales will be held in FY 1985, and geothermal leasing will be significantly expanded, reaching nearly 500 sales per year by FY 1985. Existing compliance activities will be expanded.	Between 15,070 and 18,635 leases will be issued annually, increases of 20 to 50 percent over FY 1979. The existing backlog of oil and gas lease applications will be reduced by about 55 percent by FY 1985. In addition to oil and gas leases, two tar sands and four oil shale lease sales will be held in FY 1985. Geothermal leasing will reach 440 sales per year by FY 1985. There will be some expansion of existing compliance activities.	Between 14,700 and 17,825 leases will be issued annually. This represents increases over FY 1979 from about 17 percent in FY 82 to about 40 percent in FY 85. These leases will be largely oil and gas leases. The backlog in oil and gas lease applications will be reduced by about 30 percent by FY 1985. Less than 400 geothermal leases will be processed annually by FY 1985, and no new oil shale leasing or tar sands leasing activities could be supported.
Management Planning Analysis[1]	Not Applicable	Not Applicable	Not Applicable

Inventory	81 million acres will be inventoried to support environmental assessments of ongoing mineral leasing program activities. Endangered species inventories, socio-economic surveys, and cultural resource surveys are examples of information funded under this category. Inventories will be detailed and comprehensive. In addition, nearly 20 million acres will be surveyed for minerals by BLM in order to complete wilderness studies by 1987.	72 million acres will be inventoried. Environmental and socio-economic information will be collected to support environmental assessments of mineral leasing activities. Some inventories will be limited in scope and depth. In addition, nearly 20 million acres will be surveyed by BLM for minerals in order to complete wilderness studies by 1987.	54 million acres will be inventoried. Much of the inventory work will be of limited detail and depth, and some may be confined to literature searches. Environmental and socio-economic information will be collected to support environmental assessments of mineral leasing activities.
Planning[1]	Not Applicable	Not Applicable	Not Applicable
Activity Planning	Assessments will be prepared for oil and gas leases and major assessment work will be undertaken for oil shale, geothermal, tar sands, and uranium leasing.	Assessments will be prepared for oil and gas leases, and major assessment work will be undertaken for geothermal, oil shale, tar sands, and uranium leasing. However, in some cases these assessments will be based on environmental and socio-economic inventories which are limited in scope and depth.	Assessments will be undertaken for oil and gas leasing and for a limited amount of geothermal leasing. No EIS's for oil shale or tar sands will be prepared.
Implementation	Not Applicable	Not Applicable	Not Applicable

[1] Performance outputs for these elements are multi-resource in nature and are described under "Planning and Inventory Coordination."

Workloads/Outputs

	Oil and Gas Leases Processed					Geothermal Leases Processed				
FY	1981	1982	1983	1984	1985	1981	1982	1983	1984	1985
Level 1	12,550	15,575	16,300	17,400	20,360	320	375	290	380	480
Level 2	12,550	15,070	15,930	16,670	18,635	320	330	270	370	440
Level 3	12,550	14,700	15,800	16,100	17,825	320	310	290	350	390

	Oil Shale Leases Processed					Tar Sands Leases Processed				
FY	1981	1982	1983	1984	1985	1981	1982	1983	1984	1985
Level 1	0	0	0	0	4	0	0	0	0	2
Level 2	0	0	0	0	4	0	0	0	0	2
Level 3	0	0	0	0	0	0	0	0	0	0

Uranium Leases Processed

FY	1981	1982	1983	1984	1985
Level 1	10	6	6	8	10
Level 2	10	6	6	8	10
Level 3	10	6	6	8	10

Acres Inventoried (Support)
in Thousands (000)

FY	1981	1982	1983	1984	1985
Level 1	21,400	26,300	19,250	18,900	16,700
Level 2	21,400	22,500	17,200	17,000	15,000
Level 3	21,400	17,000	13,500	12,200	11,000

Acres Inventoried (Wilderness)
in Thousands (000)

FY	1981	1982	1983	1984	1985
Level 1	0	5,860	6,000	4,000	4,000
Level 2	0	5,860	6,000	4,000	4,000
Level 3	0	0	0	0	0

As indicated in the tables, initiation of tar sand leasing and expansion of oil shale leasing would be postponed beyond FY 1985 under Level 3, and geothermal leasing would be limited at that level as well. Under Level 2, these leasing activities would be expanded, as would oil and gas leasing. The greatest amount of leasing would take place under Level 1. The largest energy casework backlog is in oil and gas lease applications. By the end of FY 1985 this backlog could be eliminated under Level 1, reduced 55 percent under Level 2, and reduced 30 percent under Level 3.

All levels include funding to implement the reforms in the simultaneous oil and gas filing system; however, only Levels 1 and 2 would allow the system to be automated. Legislation currently under consideration may result in expanded competitive oil and gas leasing; however, costs are not expected to vary significantly from those of existing leasing activities. Therefore, such legislation would not affect the anticipated outputs at the alternative funding levels.

There are significant differences between the funding levels in the information upon which environmental assessments are based. Under Level 3, environmental and socioeconomic information would be limited to existing data, literature searches, and minimal new data collection. Under Level 2, new data collection efforts would be undertaken in many cases, but not for all information needs. Comprehensive and up-to-date environmental and socioeconomic data will be provided in all cases under Level 1. In addition, an accelerated wilderness schedule could only be supported undér Levels 1 and 2.

When the alternative funding levels were developed for this report, a decision regarding future oil shale leasing had not been made. Levels 1 and 2 include funding for sale of four oil shale leases in FY 1985. Because it was not known whether a positive decision on oil shale leasing would result in a continuation of the prototype leasing program or in initiation of a permanent leasing program, adequate funding for leasing under a new permanent program was included.

On May 27, 1980, Under Secretary Joseph announced his decision to lease up to four new oil shale tracts under the prototype leasing program and directed that a permanent leasing program be developed. A detailed schedule implementing Under Secretary Joseph's decision has not yet been developed; however, sale of new prototype leases may take place prior to FY 1985. A preliminary analysis indicates that funding included in this request may be adequate for an earlier prototype sale. However, it may not be adequate for initiating a permanent leasing program prior by FY 1985.

Relationship to Other Programs

Cadastral surveys are required to support the onshore energy program, particularly in developing a comprehensive listing of Federal mineral ownership in the eastern States and in cases of energy mineral trespass.

Coordination with other Federal agencies, particularly the Geological Survey (inventory and evaluation) and the Forest Service (leasing on Federal lands managed by the Forest Service) is required as well.

OFFSHORE ENERGY

The Outer Continental Shelf Lands Act of 1953 established Federal jurisdiction over approximately 1.147 billion acres of submerged lands on the continental shelf seaward of State boundaries. The Act charged the Secretary of the Interior with responsibility for the administration of mineral exploration and development on the Outer Continental Shelf (OCS). It also empowered the Secretary to formulate regulations so that provisions of the Act might be met. To carry out this mandate, the Secretary designated the Geological Survey as the agency responsible for overseeing exploration and development operations on the Outer Continental Shelf and the Bureau of Land Management as the administrative agency responsible for supervising leasing and granting pipeline rights-of-way. In this role, BLM is directed to provide for orderly development of OCS oil and gas resources, and to provide for protection of the environment concomitant with development of mineral resources.

Since 1953, over 16,000 wells have been drilled on more than 3,500 leases. Nearly 5 billion barrels of oil and 39 trillion cubic feet of gas have been produced yielding more than $28 billion in revenues to the Treasury. The OCS is expected to remain a vital source of oil and gas in the near future. While known reserves total about 3.4 billion barrels of oil and 36 trillion cubic feet of natural gas, estimates of potential additional reserves run as high as 50 billion barrels of oil and 180 trillion cubic feet of gas.

During the past 25 years, the percentage of total U.S. production of oil and natural gas which originates in the Outer Continental Shelf has increased from less than one percent to more than nine percent for oil and 22 percent for gas. Through 1975, OCS leasing activity was confined almost entirely to the Gulf of Mexico and a small area in the Santa Barbara Channel off Southern California. Recognizing that the growing national demand for oil and gas warranted increased OCS development, the Department of the Interior issued a planning schedule in November 1974 which began the leasing of "frontier" areas off the Alaska, California, and Atlantic Coasts.

The Congress enacted the Outer Continental Shelf Lands Act Amendments in 1978. These amendments are the first revisions to the procedures used for leasing offshore oil and gas since the original OCS Lands Act was adopted

25 years ago. Included in the reforms are measures to ensure that leasing of offshore resources proceeds on a predetermined five-year schedule which is paced with the development of resource and environmental information needed for safe and responsible development of the Nation's offshore resources.

In the Amendments, the Congress established policies for the management of the OCS. The OCS is to be managed to promote:

- the orderly development of marine mineral resources to meet the energy demands of the Nation,
- the protection of the marine and coastal environment, and
- the receipt of a fair return for leased mineral resources.

The OCS leasing process and the new five-year leasing schedule, the Intergovernmental Planning Program, and the Environmental Studies Program are the key areas of BLM involvement in the Department's OCS program.

Pre-lease-sale activities are conducted for specific geographical areas on the schedule. The Call for Nominations solicits industry interest and State and public comments concerning potential exploration and development. Tentative selection of tracts for study is made by the Secretary based on results of the Call and recommendations of BLM and the Geological Survey, after preliminary environmental and geophysical evaluations by BLM and GS. An Environmental Impact Statement and Secretarial Issue Document are prepared for the proposed sale decision. Based on these documents, and prior to making a final decision on whether to hold the sale, which tracts to include, and which mitigating measures to implement, the Secretary requests comments from affected States on a proposed notice of sale. After a sale has taken place, principal supervision of exploration, development, and production activities is performed by the Geological Survey. However, BLM reviews plans for these activities and grants pipeline rights-of-way. (The Survey grants rights-of-use and easements for pipelines.)

Current Status

Section 18 of the OCS Lands Act Amendments of 1978 required the Secretary to submit to Congress a five-year schedule of leases he determines will best meet the nation's energy needs. The new proposed five-year schedule includes 36 sales between June 1980 and May 1985—six in the Atlantic, 11 in the Gulf of Mexico, four in the Pacific, 10 in Alaska, and five reoffering sales. The final Environmental Impact Statement on the proposed five-year schedule was published January 18, 1980, and final schedule approval is expected in June 1980.

Implementation of the new schedule emphasizes cooperation with coastal States and communities to protect coastal resources and resolve possible conflicts. Efforts to coordinate with coastal State governments have increased substantially in the last few years. The Department has worked with advisory groups to the OCS program since 1974. A reorganization of the OCS Advisory Board in December 1978 expanded the Board and its functions, at the same time making it more responsive to specific program needs. The Advisory Board is now comprised of the members of eight committees. Representatives of Federal agencies, coastal State governments, and the private sector form the Policy Committee to provide the Secretary with policy guidance on all aspects of OCS exploration and development. The Scientific Committee monitors BLM's Environmental Studies Program, providing advice on the feasibility, appropriateness, and scientific value of its research. The Committee's 15 members are respected scientists from all six OCS regions with a balance of perspectives and technical skills.

Six Regional Technical Working Group Committees—one for each leasing region—bring together representatives of Federal agencies, State governments, and the private sector who are concerned with and knowledgeable about technical matters relating to OCS development. They work closely with BLM to provide recommendations on pre-lease-sale activities and decisions and on the designation of acceptable transportation corridors. In the event of a marketable find, each Regional Group will develop a Regional Transportation Management Plan for its area. The Regional Technical Working Groups carry out BLM's Intergovernmental Planning Program for OCS Oil and Gas Leasing, Transportation, and Related Facilities (IPP).

The Environmental Studies Program is a major part of BLM's OCS leasing program. Started in 1974 in response to a challenge to the adequacy of the environmental data base related to a scheduled sale in the Eastern Gulf of Mexico, the program was designed to produce and analyze information needed for prediction, assessment, and management of the potential impacts of OCS development on the human, marine, and near-shore environment. During the past two years, the program has been revised to strengthen its link with the leasing process, as a result of an evaluation of the Studies Program by the National Academy of Sciences which was sponsored and funded by BLM.

Under the new program, Regional Studies Plans are developed annually by OCS Field Offices, working with the Regional Technical Working Groups. Environmental and socio-economic issues associated with OCS program decisions are identified and translated into study needs. Each Regional Studies Plan is compiled into a National Plan and screened to rank studies in priority. Criteria include criticalness of information—i.e., necessity for responding to statutory or legislative requirements, immediacy of information needs, breadth of applicability, degree of regional concern—and others. Additional oversight is provided by the Scientific Committee of the OCS Advisory Board. The result is a program of studies designed to address the information needs of decision makers throughout the OCS leasing and development process and to anticipate related scientific issues.

In fiscal year 1979, the Bureau funded more than 134 studies addressed to all areas of the U.S. Outer Continental Shelf. Among the subjects investigated were geological hazards to OCS development, marine mammals and birds, air quality modelling, subsea permafrost and oil-ice interactions, effects of oil and sound on marine organisms, and cultural resources.

There have been several court actions in recent years concerning OCS sales. The Department of the Interior has been upheld in all OCS sale-related suits which have been settled. Several suits are currently pending. *State of Texas* v. *Andrus* involves Section 8(g) of the OCS Lands Act Amendments and concerns leasing of oil and gas pools or fields underlying both the Outer Continental Shelf and lands subject to State jurisdiction. *Energy Action* v. *Andrus* concerns the use of alternative bidding systems and the receipt of fair market value, and specifically involves Sale No. 48 offshore of Southern California. No injuctions have been issued as a result of these suits. A sale on Georges Bank in the North Atlantic was delayed as a result of court action. While that sale was finally held in December, 1979, the case remains to be settled through motion for summary judgment or trial on the merits. The most recently filed suit, *North Slope Borough* v. *Andrus*, concerns the joint Federal/State Beaufort Sea sale offshore of Alaska. The District Court enjoined acceptance of bids pending decision on the merits of the case; a Federal appeal is pending.

Issues

The crux of all the issues surrounding OCS development is the required balancing of environmental risks and development benefits. Recently, this conflict has focused on the proposed five-year leasing schedule. Many of these issues are expected to continue to be of concern during the four-year authorization period. Foremost among the areas of contention is the proper pace of leasing in Alaskan frontier areas. Seventy percent of the Nation's OCS is off the coast of Alaska. Three lease sales have been held in Alaska. However, one-third of the sale areas included on the propored schedule are offshore of Alaska, and nine of these are frontier areas. While several oil companies would like to see faster leasing than has been proposed, the State of Alaska, environmental groups, and others would like to see some of the Alaska sales delayed or indefinitely postponed. Several issues are of concern in these Alaska areas.

- Subsistence utilization of local fish, game, marine mammals, and vegetation is a prominent way of life for Alaskan natives in coastal areas adjacent to most proposed lease sale areas offshore of Alaska. Potential impacts to these resources and to the subsistence lifestyle from development facilities onshore and oil spills must be carefully assessed and minimized to the extent possible.

- Alaskan fishermen are concerned about adverse impacts of OCS development affecting fisheries stocks, harvesting efforts, and availability of harbor facilities. Efforts to expand the bottom fishery in offshore waters are being made and increase the concerns regarding potential conflicts. This issue also requires careful impact assessment and development of means to minimize conflicts.

- Alaskan OCS areas are rich in wildlife. Eight species of endangered whales spend at least part of the year in Alaska, and critical migration passages for some of these species are adjacent to potential OCS lease sale areas. Significant portions of waterfowl populations which migrate through or winter in other parts of North America and the Pacific breed in Alaska. Some of these birds are protected by treaty and some are threatened and endangered species. The Bureau needs to expand its ability to predict and minimize negative impacts of OCS development on these species.

- Many onshore areas adjacent to potential OCS areas have no governmental structure. In the absence of planning and zoning authority, and prior to the development of local coastal management plans (these areas are covered by the State coastal zone management program), many of the tools needed by local communities to address onshore impacts of OCS development are lacking. Special efforts are needed both to assess and predict these impacts and to work with local communities and the State to address them.

- The technological ability to operate in harsh environments in Alaska, particularly in Arctic ice conditions, is of concern to many. Where such technology is new, experimental, or proposed, assessment of potential impacts of OCS development is made more difficult. Expanded ability to make such assessments and to evaluate necessary lease stipulations and other precautionary steps will be required.

Another major issue in relation to OCS development, particularly in Alaska and to a lesser extent in California, is the transportation and processing of oil and gas resources. Marketing of Alaskan production will require major new transportation systems. Concerns have been raised regarding the extent to which west coast refineries can handle Alaskan and California production, and the effects of processing on California's air quality. Alaskan gas, if produced, will in some cases probably have to be converted to liquefied natural gas, and adequate reconversion facilities do not exist in the lower 48. Addressing these issues will require close coordination among several Federal agencies and State governments.

Many of the issues which have been raised with regard to Alaskan sales are also at issue in other sale areas, such as conflict with fisheries in the North Atlantic and the vulnerability of coastal wildlife resources to nearshore OCS development in California. All will require a well designed Environmental Studies Program, careful impact evaluation, development of methods to minimize impacts, and commitment to public participation in the OCS decision-making process.

Goals

The OCS program operates within a pre-planned five-year leasing schedule approved by the Secretary and reviewed by Congress. This schedule is based on Department of Energy oil and gas production goals. The overriding goal is to carry out that schedule and facilitate transportation of resources produced, while protecting the marine and coastal environment and assuring fair market value. In order to meet this broad goal, the following additional goals have been established.

- To provide the necessary information and data for informed OCS sale-related decisions and to insure that they can be effectively integrated into the decision-making process.
- To increase the technical, scientific, and analytic expertise of the OCS program in order to provide better impact assessment and to develop means of minimizing or resolving impacts and conflicts.
- To encourage and provide the opportunity for the public, States, and other Federal agencies to understand and participate in OCS program policy and planning decisions.

Alternative Investment and Performance Levels

The Bureau's jurisdiction over the OCS is narrower than its jurisdiction over the public lands. Therefore, the OCS program is carried out in a different manner from other BLM programs. One element which does not have a parallel in public lands programs is the integrated OCS Environmental Studies Program. For this report, these studies have been included with the inventories which are utilized in other programs first for area-wide planning and also for implementation planning and environmental assessment. OCS studies information is used in all sale-related decisions, including OCS sale environmental impact statements, and for transportation planning and offshore pipeline rights-of-way decisions.

While baseline characterizations and socioeconomic surveys are similar to inventories performed for onshore programs, the studies program also includes effects studies, generic studies which are not specific to individual sale areas, and monitoring. Another difference is that all OCS environmental studies are performed by contract or interagency agreement. Therefore, the ratio of personnel to funding for accomplishing these studies is not the same at alternative funding levels.

The funding and full-time permanent position levels identified in the investment tables differ from those included in the Secretary of the Interior's Report to Congress and to the President accompanying the proposed five-year OCS leasing schedule. The estimates included in that report were for sales included on the five-year schedule only. The funding and full-time permanent positions included in the tables here include those necessary to conduct pre-sale studies, analyses, and planning for sales which may be held after May 1985—pre-sale activities which are required two to three years prior to an actual sale.

Investments

Funding in Thousands (000) of 1980 Dollars

	Requested Appropriation[1]	Existing Authorization[2]		Authorization Analysis			
	FY 1981	FY 1981	1982	FY 1982	1983	1984	1985
Level 1	48,526	93,375	99,600	69,757	67,895	84,734	75,980
Level 2	48,526	93,375	99,600	65,092	63,932	80,784	70,783
Level 3	48,526	93,375	99,600	54,478	54,892	54,976	55,069

Full-Time Permanent Positions

	Existing Ceiling[3]	Existing Authorization[2]		Authorization Analysis			
	FY 1981	FY 1981	1982	FY 1982	1983	1984	1985
Level 1	243	280	285	309	313	313	322
Level 2	243	280	285	278	281	281	282
Level 3	243	280	285	277	279	279	280

[1] Revised President's Budget
[2] BLM Four-Year Authorization for Fiscal Years 1979-1982
[3] Established by the Department of the Interior

An additional difference between studies funding identified in the Secretary's Report to Congress and that identified in this report is that additional monitoring studies and expanded endangered whale studies are included in Levels 1 and 2. These later studies were determined to be necessary as a result of endangered species consultations which were completed after the Secretary developed his budget estimates for the five-year schedule. The Secretary's budget estimate for the five-year schedule provides for limited monitoring. Protection of geographic areas and resources of particular concern which are covered by leases issued prior to commencement of sales on the new schedule, and which may be included in new leases, will be enhanced by additional monitoring. Such monitoring is useful for carrying out lease stipulations, detecting any adverse impacts, and making future leasing decisions regarding the area monitored or other areas with similar characteristics.

Performance

<table>
<tr><th></th><th>Level 1</th><th>Level 2</th><th>Level 3</th></tr>
<tr><td>Service, Operations and Maintenance</td><td colspan="3">Twenty-eight lease sales currently on the five-year schedule (FY 82 through May 1985) will be held; one additional sale is expected to be held between June 1985 and the end of the 1985 fiscal year. Approximately 5160 leases will be maintained by the end of FY 85, compared to 2365 in FY 80. Pipeline rights-of-way will be issued in the Gulf of Mexico and in Southern California.</td></tr>
<tr><td>Management Planning Analysis[1]</td><td>Not Applicable</td><td>Not Applicable</td><td>Not Applicable</td></tr>
<tr><td>Inventory (Environmental Studies)</td><td>Those studies most critical for decisions regarding sales on the five-year schedule will be conducted. Some additional effects studies will be undertaken to enhance assessments and analyses for decision making.</td><td>Those studies most critical for decisions regarding sales on the five-year schedule will be conducted.</td><td>Those studies most critical for decisions regarding sales on the five-year schedule will be conducted.</td></tr>
<tr><td></td><td>All studies anticipated to be required during the four-year period to support decisions for sales beyond the current five-year schedule will be conducted.</td><td>All studies anticipated to be required during the four-year period to support decisions for sales beyond the current five-year schedule will be conducted.</td><td>Limited studies will be undertaken to support sales beyond the current five-year schedule. Only limited monitoring will be conducted.</td></tr>
<tr><td></td><td>Studies to monitor impacts in sensitive environmental areas and to enhance understanding of OCS development-related impacts will be undertaken.</td><td>Studies to monitor impacts in sensitive environmental areas and to enhance understanding of OCS development-related impacts will be undertaken.</td><td></td></tr>
<tr><td>Planning[1]</td><td>Not Applicable</td><td>Not Applicable</td><td>Not Applicable</td></tr>
<tr><td>Activity Planning (Environmental Assessment)</td><td colspan="3">Nineteen OCS-sale EIS's will be issued between FY 1982 and FY 1985, and approximately 11 additional statements will be initiated. In addition, planning for transportation of OCS oil and gas will be initiated in all OCS regions through the Intergovernmental Planning Program. More advanced planning will be required in the Gulf of Mexico; most evaluation of potential transportation modes and routes in other areas will depend upon when and whether production is established.</td></tr>
<tr><td>Implementation</td><td>Not Applicable</td><td>Not Applicable</td><td>Not Applicable</td></tr>
</table>

[1] The Offshore Energy Program is not included in the Bureau's planning system; therefore, no land use plans are developed for the OCS. Program elements of the Offshore Energy Program have been included in those management categories where the most analogous activities in BLM's Onshore Programs are included.

Workloads/Outputs

	Lease Sales						Leases Maintained*					
	FY	1981	1982	1983	1984	1985	FY	1981	1982	1983	1984	1985
Level 1		7	7	8	7	7		2,915	3,360	4,240	4,760	5,160
Level 2		7	7	8	7	7		2,915	3,360	4,240	4,760	5,160
Level 3		7	7	8	7	7		2,915	3,360	4,240	4,760	5,160

*Does not take into account any leases which may be relinquished.

As indicated in the preceding material, the alternative funding levels principally affect the Environmental Studies Program. All funding levels include those funds identified in the Secretary's Report to Congress and to the President as being required to conduct studies necessary for making leasing and transportation decisions on those sales on the five-year leasing schedule. Level 3 includes some additional funds which would allow BLM to conduct limited additional studies in support of early sales beyond the schedule. However, few monies would be available for monitoring. In addition to studies for sales on the five-year schedule, including expanded endangered whale studies previously discussed, Level 2 would provide for additional monitoring and for all studies anticipated to be required during the four-year period in support of sales beyond the current schedule. Level 1 would also allow monitoring and undertaking all anticipated studies needed to support sales beyond the current schedule. However, Level 1 would provide limited funds in addition to those identified in the Secretary's Report for studies concerning currently scheduled sales and the expanded endangered whale studies. These additional studies funded at Level 1, and the monitoring conducted at Levels 1 and 2, will provide information to enhance understanding of OCS development-related impacts and will increase the Bureau's ability to ensure that all environmental risks are considered, that unacceptable adverse impacts are not occurring in sensitive environmental areas, and that appropriate measures are developed to minimize impacts.

The differences in numbers of full-time permanent positions at the three levels is not related to differences in funding for environmental studies. Increases over the FY 1981 FTP ceiling in Levels 2 and 3 are largely to convert existing non-FTP personnel to permanent positions, to ensure BLM's ability to attract and retain qualified personnel. The increase over the FY 1981 FTP ceiling in Level 1 includes conversion to permanent positions and additional clerical, operations, and environmental assessment positions. The additional positions would ensure that all required disciplines are represented on environmental assessment teams, that in-depth and timely reviews are provided for exploration and development plans and pipeline rights-of-way applications, and that other activities are conducted in a thorough and timely manner.

Relationship to Other Programs

The OCS program uses technical and support services of the Bureau. Cadastral Survey prepares protraction diagrams which delineate offshore tracts for leasing. In addition, the OCS program does not presently have available an automated data handling system for environmental information. The Bureau's Data Management program will work in the four-year authorization period to develop such a system. More effective and efficient methods of storing and utilizing OCS environmental studies data has been identified as a support need for the OCS program.

The OCS program within the Department of the Interior is carried out and supported by several agencies and offices. As previously discussed, the U.S. Geological Survey has primary responsibility for regulation of post-lease-sale activities and, additionally, supports BLM pre-leasing activities through its resource evaluations and by performing oil spill risk analyses. The Fish and Wildlife Service also provides advice to the Bureau on pre-lease-sale activities. In particular, the FWS provides opinions regarding jeopardy to threatened and endangered species under their jurisdiction. As the five-year schedule is implemented, requirements will increase for continued and improved coordination with FWS and with the National Oceanic and Atmospheric Administration, which has jurisdiction over marine threatened and endangered species. Continued legal assistance from the Department on compliance with the Endangered Species Act, as well as the National Environmental Policy Act, will also be required.

NON-ENERGY MINERALS (ONSHORE)

Since the early days of mineral exploration and development, the public lands have been the primary source of much of the non-energy mineral production in the United States. The Federal onshore mineral estate consists of approximately 822 million acres of public and acquired lands and lands that have been patented but in which subsurface mineral rights have been reserved by the Federal government.

Federal minerals are made available to the public in three ways: by mining claim location under the Mining Law of 1872, by lease under the Mineral Leasing Act of 1920, and by sale under the Materials Sales Act of 1947. In the lexicon of public land management, they are often described as locatable minerals, leasable minerals, and salable minerals.

The Mining Law of 1872 gives the discoverer of a valuable mineral deposit the right to purchase complete (fee) title to the claim for $2.50 an acre for placer claims and $5.00 per acre for lode claims. Placer claims involve glacial or alluvial deposits of sand or gravel containing eroded mineral particles; lode claims involve minerals embedded in hard rock. The minerals locatable under this Act include: gold, silver, copper, mercury, lead, and bentonite.

Until 1976, when FLPMA was passed, claimants filed their location notices only with county clerks and, as a result, the Federal government had no official record of the number, location, or identity of claims or claimants. FLPMA, however, requires a claimant to file with BLM a copy of the location notice filed with local government officials and to file annually thereafter with the local government and with BLM evidence indicating that the claim is not abandoned.

FLPMA also required that claims located prior to October 21, 1976, be recorded with BLM on or before October 22, 1979. By that statutory deadline, 1,087,376 mining claims were recorded with BLM. Wyoming, Utah, Colorado, and Nevada were the States with the heaviest filings.

When the claimant applies for a mineral patent, or the United States itself wants to determine definitively the validity of a claim, a BLM mineral examiner makes an on-the-site mineral examination. If this professional examination leads the examiner to corroborate the discovery of a valuable mineral deposit, the claim may be patented. If discovery is not corroborated, the issue goes before an administrative law judge. Many such contests ultimately get into the courts through appeal procedures.

The Mining Law does not itself define a valuable mineral deposit. The Department of the Interior, and then the Supreme Court, defined it by "the prudent man rule," i.e., where minerals have been found and the evidence is of such a character that a person of ordinary prudence would be justified in the further expenditure of labor and means with a reasonable prospect of success in developing a valuable mine.

In 1955, the existing law was amended to provide that control of surface resources on unpatented mining claims would remain under Federal jurisdiction. The Secretaries of the Interior and Agriculture, under that amendment, have authority over vegetative and other surface resources, and may authorize lessees and permittees of the United States access over such claims for the use and enjoyment of such resources. The amendment also provides that unpatented mining claims may be used for "prospecting, mining or processing operations and uses reasonably incident thereto" only.

Congress passed the Mineral Leasing Act in 1920 removing sodium, phosphate, sulfur, and potassium from the terms of the 1872 Mining Law and provided for leasing these minerals rather than claim staking. In 1947, Congress passed the Acquired Lands Mineral Leasing Act to apply the terms of the 1920 Act to all minerals on acquired lands, not just those specified in the 1920 Act.

Under the terms of these two acts, BLM has leasing responsibilities for 674 million acres of public lands and National Forests and 57 million acres of acquired lands. The law provides for both competitive and noncompetitive leasing. Leases have a 20-year term and may cover a maximum of 2,560 acres. They can be reviewed at 20-year intervals, except for sodium leases which are issued with a preferential right to renew for successive 10-year periods. Prospecting permits are issued prior to the issuance of noncompetitive leases and a valuable deposit discovery entitles the permittee to a preferential right to the noncompetitive leases. A variety of rental and royalty provisions apply, varying with the mineral involved. Unlike coal or oil and gas, there are no diligent development requirements under these leases.

In 1947, Congress passed the Materials Sale Act to make sand and gravel and building stone available for commercial use. They are sold both competitively and noncompetitively. Some sales are made to individuals who are given exclusive rights to a site. Other sales are made for materials in common sites. Government agencies and nonprofit organizations may be granted such materials at no charge under a free-use permit.

In addition to the leasing and other authorities discussed above, Congress reiterated the Federal policy toward mineral development in the Mining and Mineral Policy Act of 1970. That Act indicates a continued policy of encouraging private enterprise in all aspects of mineral development, recycling, and reclamation, including the development of economically sound and stable mineral-related industries.

Current Status

Section 302(b) of FLPMA requires the Department to take actions to prevent unnecessary and undue degradation of the public lands from mining activity, a requirement reiterated in Section 603 with respect to wilderness study areas. BLM published final regulations to govern surface management in wilderness study areas in March 1980 (43 CFR 3802) and proposed regulations governing mining activity on all public lands (43 CFR 3809) were published at the same time. These regulations provide a procedure for miners to notify BLM of activity on mining claims and also establish standards for approval of the conduct of mining activities, including reclamation. Cooperative agreements with State governments will be developed where possible to allow efficient and cost-effective cooperative enforcement of similar State and Federal regulations.

New regulations to clarify and consolidate the existing regulations on non-energy leaseable minerals were drafted in fiscal year 1979. Publication of the draft regulations is expected in the summer of 1980. Proposed regulations dealing with unauthorized removal of minerals were published on March 11, 1980.

Issues

Public concern over hardrock mineral development ranges from access to public lands for mineral exploration and development to the theft of Federal minerals.

Concern that the Federal government is restricting access to, or "locking up" public lands to mineral development has been strongly voiced by western mineral interests. The basic charge is that the Bureau's mandated wilderness review, withdrawal review, and associated access decisions are keeping vast areas of the West from being developed.

In point of fact the vast majority of the land that was under wilderness review has already been released to multiple use again. The main worry now is what will happen to those areas presently under wilderness study and the effect of the Interim Management Policy and the new surface management regulations on the speed and extent of mining permitted. Similarly, mining companies are frustrated by the length of time required for the Bureau to examine past withdrawals to see if those lands might be returned to multiple use again.

Demand is heavy for the acceleration of the inventory and planning requirements of both the wilderness and withdrawal reviews to release these lands from uncertainty. But, in order to meet that demand, substantial increases in support will be required. The effect of alternative levels of support for these programs is discussed in their respective chapters of this report.

Another important issue is the strategic minerals shortage and the Bureau's role in solving it. Strategic minerals such as chromium, manganese, cobalt, and platinum on public lands have become increasingly important as the Nation reduces its dependence upon uncertain foreign sources. Withdrawals, lack of access, long processing timeframes, and in some cases limited minerals information have discouraged domestic mineral production on Federal lands. Public demand is growing for the Bureau to work with the U.S. Geological Survey and the Bureau of Mines to determine accurately the degree to which public lands can alleviate projected critical shortages. A central BLM responsibility will be to determine what procedural and planning steps are needed to facilitate development of these minerals.

As recently as February 1979, the General Accounting Office evaluated the impact of the Mining Law on the availability of locatable minerals as a result of the Department's withdrawal program, and also addressed its relationship to FLPMA. Public concern has centered on the consistency of the 1872 law with FLPMA mandates to manage public lands so as to protect natural and environmental values and to ensure that the United States receives fair market value for use of public land resources.

In the past, mining activities on unpatented claims have not been regulated to provide for surface protection. However, the Bureau has recently published proposed surface management regulations which would extend such protection to these claims. The FLPMA mandate concerning fair market value orders the Bureau to ensure that "the United States receive fair market value of the use of the public lands and their resources unless otherwise provided for by the statute." While it has been suggested by some that a leasing system for minerals which are currently locatable would provide a fair market return, the 1872 Mining Law does not require that fair value be received. Mineral rights granted under the 1872 Mining Law differ from many other Bureau resource use grants in that the resources are not inventoried and evaluated by the Bureau prior to the grant. The claimant bears the investment risk. Any change in the present patent system to a leasing system, a granting of more restricted rights, or a shift in investment risk would require repeal of the Mining Law of 1872 and passage of new mineral leasing law.

Another concern with regard to development of minerals on public lands is the existing backlog in the processing of various mineral applications which currently impedes expeditious mineral development. At the beginning of FY 1980, there were 397 outstanding mineral patent applications; 218 were being appealed, in litigation, or awaiting action by some other Federal agency, and 179 were awaiting BLM action. There are also 150 leases awaiting renewal or readjustment resulting from delays in issuing minimum royalty regulations.

The rising price of available supplies of mineral resources will increase the demand for leasable and locatable minerals on the public lands as well, with an associated increase in the Bureau's lease and patent application and compliance workload. Similarly, new surface management regulations covering operations on mining claims within wilderness study areas (43 CFR 3802), as well as proposed regulations covering operations on other claims, when finalized, will generate a significant new workload. The 3802 regulations are already generating a workload increase, and the 3809 regulations are expected to increase this workload in FY 1981. Based on available data regarding existing claims, and on the provisions included in the existing regulations and in the new regulations (43 CFR 3809) as proposed, it is estimated that between 1,950 and 5,800 plans of operation will be submitted annually between FY 1982 and FY 1985. This represents an expansion in surface protection activities compared to current and FY 1981 projected efforts.

In addition, material sales and free-use permits for construction material are expected to increase, and construction material from public lands will be required to support projects such as the Northern Tier Pipeline and the proposed MX missile system.

Processing applications, especially mining claim validations, is labor-intensive. The existence of processing backlogs is clear evidence that the Bureau is not able to cope with existing demands at its current budget and personnel limit.

Mineral trespass, the extraction of Federal salable minerals without authority or payment, is another long-standing issue, one which generally occurs when a landowner with surface rights sells or extracts subsurface minerals still owned by the Federal government. Though infrequent, losses from "trespass" can be extensive, and as demand for minerals increases, so does the likelihood that trespass will occur. The Federal government recently took such an owner to Federal court and recovered damages for the illegal taking of 40,000 cubic yards of gravel. Far more numerous and almost impossible to control are thousands of small casual takings on the open public lands. More important than the loss of revenue is the legacy of disturbed and eroding land such extraction leaves behind, land the Bureau is responsible for holding in trust for the Nation. The Bureau's lack of on-the-ground personnel is a serious limitation to preventing or discovering trespass problems. Proposed regulations (43 CFR 9230, *Federal Register,* March 11, 1980) were recently published dealing with the unauthorized removal of minerals. These regulations provide for reclamation of disturbed sites and reimbursement for minerals removed.

Other mineral development issues of concern are the management and environmental problems associated with the proliferation of mineral access roads and vehicle tracks on the public lands, and how mining claims will be managed within lands to be conveyed to the State of Alaska and Alaska Natives under the Alaska Statehood and Alaska Native Claims Settlement Acts.

Goals

- To provide an orderly and environmentally sound process for mineral exploration and development on the public lands.
- To complete necessary mineral resource inventories and evaluate Federal mineral potential on acquired lands as well as public lands.
- To eliminate the current backlog of mineral patent and leasing applications and to process new applications expeditiously.
- To implement the surface management (43 CFR 3802 and 43 CFR 3809) regulations by reviewing an estimated 1,950-5,800 Plans of Operations annually.
- To amend regulations (43 CFR 3601) which currently prevent BLM from "disposing" of common variety minerals found on unpatented mining claims.
- To amend regulations (43 CFR 3711) to redefine "common variety."
- To expedite paleontological inventories needed to support mineral plans.

Alternative Investment and Performance Levels

The Investment and Performance tables which follow indicate the costs and associated accomplishments for the onshore non-energy minerals program at the alternative funding levels. One component, administration of the new and proposed surface management regulations, requires some explanation.

As of January 31, 1980, over 1,157,000 mining claims were recorded with BLM. Mining claim exploration and development activities which meet certain threshold criteria (such as use of earthmoving equipment) will require plans of operation to be filed with BLM. These will be based on mining operations and not individual claims. Because neither the type and level of activity taking place on existing claims nor the number of mining operations are known, the number of plans which will be submitted for review can only be estimated. Currently proposed regulations require review and action on Plans of Operations within a maximum of 90 days. If action is not taken by BLM, an operator may begin operations in accordance with the plan as submitted, even though a comprehensive review, with its associated planning and full-scale environmental assessment, has not been completed. The Bureau is not now equipped to handle these reviews at such a pace. Consequently, the quality of such reviews will directly reflect Bureau support levels. Without funding and personnel the Bureau will concentrate review and assessment efforts on those proposed mineral actions with the greatest potential for adverse environmental impact.

The number of plans reviewed at Level 1 is the number of plans anticipated to be received, based on existing information and regulations, and on the provisions of 43 CFR 3809 as proposed. At this level, all plans received would be fully reviewed and field examinations conducted for the purpose of preparing environmental assessments. At Levels 2 and 3, all plans received would be screened to determine the sensitivity of the area involved and the magnitude of the activities planned. Plans for those operations determined to have the greatest potential for adverse environmental effects would receive at least a thorough office review; however, field examinations would not be possible in all cases. For Levels 2 and 3, the Investment and Performance tables show the number of plans which would receive a full office review, and also the percentage for which field examinations could be conducted. It should be noted that in all cases reclamation of disturbed mining claims will be required. However, funding and personnel available will affect the degree to which the adequacy of planned reclamation efforts can be analyzed, as well as the amount of compliance monitoring.

Investments

Funding in Thousands (000) of 1980 Dollars

	Requested Appropriation[1]	Existing Authorization[2]		Authorization Analysis			
	FY 1981	FY 1981	1982	FY 1982	1983	1984	1985
Level 1	8,632	18,675	16,185	14,515	15,435	16,004	17,970
Level 2	8,632	18,675	16,185	12,797	13,000	13,464	15,424
Level 3	8,632	18,675	16,185	10,000	10,920	11,329	13,264

Full-Time Permanent Positions

	Existing Ceiling[3]	Existing Authorization[2]		Authorization Analysis			
	FY 1981	FY 1981	1982	FY 1982	1983	1984	1985
Level 1	192	480	422	279	298	313	352
Level 2	192	480	422	236	260	272	301
Level 3	192	480	422	198	218	230	256

---

[1] Revised President's Budget
[2] BLM Four-Year Authorization for Fiscal Years 1979-1982
[3] Established by the Department of the Interior

Performance

	Level 1	Level 2	Level 3
Service, Operations and Maintenance	The backlog in patent applications pending Bureau action will be eliminated by FY 1983. In addition, over 20,000 plans of operation on mining claim activities will be reviewed, and 13,660 leases, material sales, and use permits will be processed.	The backlog in patent applications pending Bureau action will be reduced initially. However, if expected increases in applications occur, the backlog will begin to grow again, although it will not be as great in FY 85 as in FY 80. Approximately 17,300 plans of operation on mining claim activities will be reviewed, or 85 percent of those estimated to be submitted. 12,225 leases, material sales, and use permits will be processed.	The backlog in patents pending Bureau action will be reduced initially. However, if expected increases in applications occur, the backlog will increase to the FY 80 level by FY 85. Approximately 14,370 plans of operations on mining claim activities will be reviewed, or about 70 percent of those estimated to be submitted. About 10,400 leases, material sales, and use permits will be processed.
Management Planning Analysis[1]	Not Applicable	Not Applicable	Not Applicable
Inventory	Mineral inventories to support land use planning and mineral activities will be performed on about 105 million acres. Paleontological inventories to support the archeological permit system will be performed on about 126 million acres.	Mineral inventories to support land use planning and mineral activities will be performed on 88.7 million acres. Paleontological inventories to support the archeological permit system will be performed on 105 million acres.	Mineral inventories to support land use planning and mineral activities will be performed on 75 million acres. Paleontological inventories to support the archeological permit system will be performed on 88.5 million acres.
Planning[1]	Not Applicable	Not Applicable	Not Applicable
Activity Planning	Environmental assessment activities will be undertaken in support of all leasing and sales, and for operations plan approvals, including field examinations for all plans anticipated to be received under 43 CFR 3802 (and 3809).	Environmental assessment activities will be undertaken in support of all leasing and sales, and for operations plan approvals. All operations plans anticipated will not receive the same level of assessment. Only about 20 to 25 percent of the plans—those estimated to have the greatest potential for adverse impacts—will receive field examinations.	Environmental assessment activities will be undertaken in support of all leasing and sales, and for operations plan approvals. All operations will not receive the same level of assessment. Only about 10 percent of the plans—those estimated to have the greatest potential for adverse impacts—will receive field examinations.
Implementation	Not Applicable	Not Applicable	Not Applicable

[1] Performance outputs for these elements are multi-resource in nature and are described under "Planning and Inventory Coordination."

Workloads/Outputs

Patents Processed

FY	1981	1982	1983	1984	1985
Level 1	142	151	151	152	162
Level 2	142	129	131	131	140
Level 3	142	107	108	111	121

Plans of Operation Reviewed

FY	1981	1982	1983	1984	1985
Level 1	2,775	4,610	4,965	5,240	5,320
Level 2	2,775	4,110	4,190	4,400	4,600
Level 3	2.775	3,170	3,520	3,730	3,950

Leases, Material Sales, Free-Use Permits Processed

FY	1981	1982	1983	1984	1985
Level 1	2,615	3,125	3,355	3,520	3,660
Level 2	2,615	2,915	3,090	3,000	3,220
Level 3	2,615	2,230	2,880	2,540	2,780

Acres Inventoried (Paleontological)
in Thousands (000)

FY	1981	1982	1983	1984	1985
Level 1	22,900	39,800	31,900	28,900	25,700
Level 2	22,900	32,500	26,800	24,300	21,500
Level 3	22,900	27,000	22,500	20,500	18,500

Acres Inventoried (Other)
in Thousands (000)

FY	1981	1982	1983	1984	1985
Level 1	25,200	25,900	26,000	23,200	29,600
Level 2	25,200	21,700	21,900	19,900	25,200
Level 3	25,200	18,000	18,400	16,800	21,700

The number of acres shown as inventoried does not reflect absolute acreage inventoried, but is a composite of several types of inventories. Those different inventories may be performed on some of the same acreage. For example, the same area may be inventoried for paleontological resources, sand and gravel, and leasable minerals, and the acreage involved for each separate inventory is included in the total.

Meeting the goals of this program in an effective and efficient manner is dependent not only on the funding and number of full-time permanent positions which are allocated to the program. The Bureau must also continue to make special efforts to attract skilled specialists (geologists, mining engineers, adjudicators) because of the competition, both within and outside of the Federal sector, for the required skills.

Leases, material sales, and free use permit processing capabilities at the three funding levels are commensurate with inventory, activity planning, and environmental assessment capabilities, as all of these actions require environmental assessments.

Relationship to Other Programs

Paleontological inventories performed as a part of this program provide the basis for issuance of archeological permits necessary for mineral development as well as the basis for measures to minimize development damage to paleontological resources. Related support activities carried out under this program are geologic hazard assessments and water well site investigations.

In order to manage mineral activities in the East, a comprehensive listing of Federal mineral ownership in the East is needed. This will require extensive support of BLM's Cadastral Survey as well as of the U.S. Geological Survey.

Inventory design and techniques and mineral mapping will be coordinated with the U.S. Geological Survey and the Forest Service. The mineral inventories themselves are also performed by the Geological Survey under cooperative agreement. These inventories and evaluations of mineral potential are required not only for minerals management activities but also for land use planning efforts.

NON-ENERGY MINERALS (OFFSHORE)

The Secretary of the Interior is authorized by the OCS Lands Act, as amended, to conduct mineral leasing and to issue leases for all minerals on the Outer Continental Shelf. In addition, the Mining and Minerals Policy Act of 1970 (30 USC 21a) charges the Secretary with broad responsibility to foster and encourage private enterprise in mining and mineral activity. Other laws which may affect the management of an offshore mineral leasing effort are the National Environmental Policy Act of 1969, the Coastal Zone Management Act, the Marine Protection, Research and Sanctuaries Act, and the Endangered Species Act.

There is no long-term Federal policy for U.S. Outer Continental Shelf mining, and no established leasing procedures. Policy and subsequent program development are necessary if the OCS is to contribute to meeting national economic and strategic mineral needs in an environmentally sound and orderly manner. Identified hard mineral resources offshore include manganese nodules (manganese, cobalt, iron, nickel, and copper), phosphorite, precious coral, salt, titanium and chromite sand, gold and platinum, sand and gravel, and a variety of heavy minerals.

Current Status

In 1979, a staff-level task force of BLM, U.S. Geological Survey, and Bureau of Mines personnel, with the participation of other Federal agencies such as the National Oceanic and Atmospheric Administration, developed a feasibility study concerning OCS hard mineral mining. The resulting report is currently under consideration by the Department of the Interior's Assistant Secretaries for Land and Water Resources and Energy and Minerals.

Currently, there is no separate offshore non-energy minerals program in BLM. Within the Offshore Energy program, BLM has participated in a staff-level task force (described above) to examine the feasibility of OCS hard mineral mining. Coral permitting is also carried out as an ancillary activity within the Offshore Energy program. These non-energy-related activities compete for funding and work months with the accelerated OCS oil and gas leasing program activities. Therefore, the Bureau believes that it is desirable to consider offshore non-energy minerals separately and allocate specific funds and full-time permanent positions in order to concentrate on the analysis of policies and procedures and on possible subsequent program development, for non-energy minerals offshore.

Issues

A broad preliminary assessment of mineral needs suggests that pressure will increase to produce domestically the critical and strategic minerals for which the Nation is now dependent on foreign supplies. Offshore sources of domestic minerals will continue to gain importance as more land areas are utilized for residential and industrial purposes and as major environmental problems continue to confront onshore operations.

Also, within the BLM jurisdiction is a program to manage coral resources on the OCS. Regulations were published (43 CFR 6224) on September 16, 1976. Permitting for taking of coral on the OCS has occurred primarily in the Gulf of Mexico and in the Pacific off California. Recently, the 5th Circuit Court of Appeals ruled that the BLM regulations could not be applied to persons other than mineral lessees in the OCS. The Federal government did not appeal the ruling, and, in effect, no management or control is now exercised over coral resources in the Gulf of Mexico or the South Atlantic area within the jurisdiction of that court.

Permitting under 43 CFR 6224 is still required for other OCS areas, and the BLM OCS offices still accept applications under those regulations. The BLM is currently analyzing the implications of the court decision and considering possible solutions which will continue the protection of the coral on the OCS.

Goal

To develop offshore non-energy mineral leasing policy and program by FY 1985.

Alternative Investment and Performance Levels

Two program approaches are considered for a new, separate offshore non-energy program. The first, which would be carried out under Levels 1 and 2, would lead to a lease sale of some type in FY 1985; at this time, it is anticipated that such a sale would be mineral-specific and of a "prototype" nature. The second approach, proposed to be carried out under Level 3, would involve policy analysis and development and initial program development steps, but a decision to hold a lease sale and preparation for a sale would be postponed beyond FY 1985. Neither program approach considers full-scale implementation of a new program; rather, both approaches emphasize planning and preparation, with necessary analysis of possible future needs and program direction for an offshore non-energy minerals program. Because only two alternative approaches, both limited, have been chosen, only two different funding levels have been developed.

As previously stated, the difference in the levels of funding and full-time permanent positions results in different program approaches and degrees of implementation. While none of the levels results in full-scale implementation of a hard mineral leasing effort offshore, Levels 1 and 2 would allow for a prototype lease sale in FY 1985. Level 3 would include analysis of the need and interest for a new program and initial program development efforts, including development of leasing procedures and analysis of possible environmental protection measures required. However, at Level 3, unlike Levels 1 and 2, no full-scale environmental impact statement would be prepared during the four-year authorization period.

Initial analysis of the need for and interest in a new offshore non-energy mineral leasing effort will be conducted at all funding levels. Levels 1 and 2 will ensure that BLM is in a position to respond to new needs and begin program implementation if the analysis indicates that industry interest and increasing demand warrant a new program.

Investments

Funding in Thousands (000) of 1980 Dollars

	Requested Appropriation[1]	Existing Authorization[2]		Authorization Analysis			
	FY 1981	FY 1981	1982	FY 1982	1983	1984	1985
Level 1	132[4]	Not Applicable		1,796	1,294	1,297	1,299
Level 2	132[4]	Not Applicable		1,796	1,294	1,297	1,299
Level 3	132[4]	Not Applicable		186	189	192	194

Full-Time Permanent Positions

	Existing Ceiling[3]	Existing Authorization[2]		Authorization Analysis			
	FY 1981	FY 1981	1982	FY 1982	1983	1984	1985
Level 1	3[5]	Not Applicable		6	6	6	6
Level 2	3[5]	Not Applicable		6	6	6	6
Level 3	3[5]	Not Applicable		3	3	3	3

[1] Revised President's Budget
[2] BLM Four-Year Authorization for Fiscal Years 1979-1982
[3] Established by the Department of the Interior
[4] Included in President's Budget as part of funding for Offshore Energy
[5] Included in Department of the Interior ceiling for Offshore Energy

Performance

	Level 1	Level 2	Level 3
Service, Operations and Maintenance	At all levels, public and industry interest in offshore non-energy mineral leasing (especially strategic minerals) will be solicited and evaluated. If sufficient interest justifies further program development efforts, regulatory procedures will be developed, including a leasing system and environmental protection measures. These efforts will be coordinated with the Department, the Geological Survey, and other Federal agencies. It is anticipated that a prototype mineral-specific leasing approach will be developed.		
	A prototype lease sale will be held in FY 1985.	A prototype lease sale will be held in FY 1985.	A lease sale will be postponed beyond FY 1985.
Management Planning Analysis[1]	Not Applicable	Not Applicable	Not Applicable
Inventory	Environmental studies will be conducted to provide a basis for an environmental assessment. Post-lease monitoring will also be designed.	Environmental studies will be conducted to provide a basis for an environmental assessment. Post-lease monitoring will also be designed.	No environmental studies will be conducted.
Planning[1]	Not Applicable	Not Applicable	Not Applicable

Activity Planning (Environmental Assessment)	At least one environmental statement will be prepared. A programmatic or a site-specific statement or both will be required.	At least one environmental statement will be prepared. A programmatic or a site-specific statement or both will be required.	No environmental statements will be prepared.
Implementation	Not Applicable	Not Applicable	Not Applicable

[1] The offshore non-energy minerals program is not included in the BLM planning system; therefore, no land use plans are developed for the OCS. Program elements of the offshore non-energy minerals program have been included in those management categories where the most analogous activities in BLM's onshore programs are included.

Relationship to Other Programs

Initiation of an offshore non-energy minerals program would require coordination with other agencies involved in mineral evaluation and development and with other agencies having jurisdiction over OCS resources. Coordination with the Bureau of Mines would be required in determining demand for hard minerals on the OCS. A new offshore mining effort would require resource evaluations by the Geological Survey. The Survey would also be involved in developing procedures for regulating offshore hard rock mining and would regulate activities resulting from any subsequent sale. Coordination with the National Oceanic and Atmospheric Administration and with the Environmental Protection Agency regarding environmental impacts, and measures to minimize such impacts, would also be required.

Renewable Resource Management

Renewable Resource Management

The Bureau of Land Management implements five renewable resource programs. Four of these—Wildlife Habitat Management; Wild Horse and Burro Management; Soil, Water and Air Management; and Range Management—are closely interrelated components required to manage the public rangelands. Though separated for administrative purposes, these programs share a common goal: to improve and maintain the productive capability of the basic rangeland resources—soil and vegetation. Other goals for these programs relate more specifically to individual commodities or uses of the rangelands. The fifth renewable resource management program, Forest Management, also relates closely to both the wildlife and the soil, water and air management programs. Goals of the forest management program reflect both the need to improve and maintain the basic productive capability of public forest land for all uses and the need to satisfy demand for timber and other forest products.

The first law governing management of renewable resources on public lands was the Taylor Grazing Act, passed in 1934 specifically for the purpose of regulating livestock grazing on public rangelands. Laws passed since then, such as the Oregon and California Grant Lands Act of 1937 and the Classification and Multiple Use Act of 1964, have increasingly recognized the broad spectrum of values and users of the public lands.

Over the last decade other laws have had a significant impact on the manner in which renewable resource programs are administered, for example: the National Environmental Policy Act, the Endangered Species Act, the Wild Free-Roaming Horse and Burro Act, the Federal Water Pollution Control Act, the Federal Land Policy and Management Act (FLPMA), and the Public Rangelands Improvement Act. FLPMA established, for the first time in the Nation's history, the broad policy guidance by which the public lands would be managed. It requires that the federal government protect and manage the public lands for a wide range of benefits under the principles of multiple use and sustained yield. FLPMA also provides for a management system characterized by comprehensive inventory and planning and full public participation. These mandates directly and profoundly affect the management of the public lands' renewable resources.

Note: The total needs identified in the alternative levels for the rangeland management programs (Range Management, Wild Horse and Burro Management, Soil, Water and Air Management, and Wildlife Habitat Management) include $15 million annually that is separately authorized under the Public Rangeland Improvement Act of 1978.

RANGE MANAGEMENT

Of the 174 million acres of public land administered by the Bureau of Land Management in the 11 western States, 170 million acres—roughly equivalent to the combined area of the mid-Atlantic and northeastern United States—are classified as "rangelands." The character and natural productivity of these rangelands vary considerably, from grasslands, woodlands, and subalpine meadows to savannahs, sagebrush plateaus, shrublands, and desert. There is a vast gap today between the potential capability and present productivity of these lands.

Use of these rangelands was for decades largely uncontrolled—and the effect of uncontrolled use of the land was dramatic. By the close of the last century, vast tracts of these lands were depleted and the soil exposed to the elements. A series of bitter winters and severe droughts in the 1920's, combined with the deteriorating condition of the rangelands, crippled the range livestock industry and made it clear that some control over the use of the public land was necessary.

The result was passage of the Taylor Grazing Act in 1934, the first law passed specifically for the purpose of regulating livestock grazing on the public lands and the beginning of the trend of increasing Federal involvement in rangeland management.[1] Under the Act, specific parcels of the Federal range were allotted for grazing use, and efforts were made to bring that use into balance with the productive capacity of the range. The principal shortcomings of the Act were its implied single purpose—to regulate livestock grazing—and its single constituency—the livestock operator. The steady increase in interest in public land resources during the 1960's led to the first articulation of the concept of multiple-use management of these lands in the Classification and Multiple Use Act of 1964.

The enactment of the Wild Free-Roaming Horse and Burro Act of 1971 established a clear national policy that these animals would also have a permanent place on the public rangelands and that their requirements would be acknowledged in the management of the forage production base.

In 1976, FLPMA established the broad policy guidance by which the public lands would be managed and provided for a land management system characterized by detailed resource inventories, comprehensive planning, and full public participation. However, Congress went beyond FLPMA to focus special attention on the Nation's rangelands with the Public Rangeland Improvement Act in 1978. The Congress found that the rangelands were still producing below their potential, and that, under then-existing funding levels, they would remain in unsatisfactory condition or decline even further.

To reverse this trend, Congress authorized "an intensive public rangelands maintenance, management, and improvement program involving significant increases in levels of rangeland management and improvement funding for multiple use values." Congress backed this mandate with a significant commitment, authorizing an investment of $365 million over the next 20 years for a program of intensified rangeland management, subject to annual appropriations.

---

[1] For the purpose of this report and to reflect the present funding structure, the Bureau's Rangeland Management program is described in terms of its closely interrelated major components: Range Management; Wild Horse and Burro Management; Soil, Water and Air Management; and Wildlife Habitat Management. The Range Management section—including text, investments, and performance—relates primarily to the livestock grazing management aspects of the Rangeland Management program. The other major components are portrayed similarly in subsequent sections.

BLM is also under a recent judicial mandate. In *Natural Resources Defense Council (NRDC), et al.* v. *Rogers C. B. Morton, et al.*, a Federal court found that BLM was in violation of the National Environmental Policy Act by failing to prepare environmental statements for livestock grazing decisions for specific areas of the public lands it administers. BLM was eventually required by an amended court order to prepare 144 individual environmental statements by 1988 covering all 170 million acres grazed by domestic livestock.

Current Status

By the close of fiscal year 1979, BLM had completed 22 EIS's covering 21 million acres of rangeland in 10 western States. An additional 16 will be completed in fiscal year 1980. The grazing EIS's address the environmental impacts of alternative levels of livestock use, systems for managing livestock use to accomplish specific management objectives, and the supporting range development projects.

Also in 1979, BLM published for public review *Managing the Public Rangelands,* a description of the Bureau's policies, objectives, and procedures for restoring the productivity of the public rangelands and ensuring that the benefits accrue to all potential users. It is the first such comprehensive statement in 20 years.

The central policy described in the document is that BLM will "manage efficiently the basic resources of the public rangelands to improve and maintain their productive capability to serve the full range of natural, social, economic, and environmental needs." The management philosophy underlying this policy is management of rangelands on an ecosystem basis, recognizing that each rangeland unit is a complex ecosystem composed of plant and animal communities and basic soil types all responsive to natural processes (wind, rain, sunlight) and the activities of man. BLM's management process, therefore, is designed to ensure the viability of the resources that compose the foundation of the ecosystem and then to ensure that the benefits of management accrue to all potential users.

In addition, to provide comprehensive and consistent professional guidance to managers in the field, the BLM Washington Office Rangeland Management program was reorganized in 1979 to include management not just of livestock grazing but of basic soil, water, and vegetation resources and wild horse and burro management on the range. Guidance for wildlife management continues to be provided by BLM's wildlife habitat management staff. Responsibility for establishing policies and procedures responsive to the Wild Free-Roaming Horse and Burro Act of 1971, as amended by FLPMA and PRIA, and for managing a nationwide adoption distribution system for excess animals was given to a new Wild Horse and Burro program under the new Assistant Director for Recreation and Environmental Areas.

The renewed emphasis given by FLPMA and PRIA to range inventory needs, and the analytic requirements of the grazing EIS's have provided BLM with an exceptional opportunity to develop, for the first time, a solid base of scientific information on the characteristics, condition, and trend of the basic soil, vegetation, and water resources of the public rangelands. BLM has developed a new soil and vegetation inventory management system to manage the collection and automated analysis of the extraordinary volume of new resource data being compiled as the foundation of the BLM planning system.

BLM has expanded its efforts to consult with a wide variety of interests involved in rangeland management in order to improve the quality of management plans and EIS's and to ensure that the implementation of needed management actions is sensitive to user needs. Examples of this type of expanded consultation include: a memorandum of agreement with the State of New Mexico to handle formal consultation requirements of Section 8 of PRIA which has become a model for the other states; funding of a joint project with the Rangelands Subcommittee of the National Governors Association to identify ways for the States to become more effectively involved in the rangeland management program; contracting with the National Academy of Sciences to conduct a series of symposia on scientific and methodological issues in rangeland management; and implementation of a variety of forms of cooperative stewardship programs with users and other agencies under the Experimental Stewardship provisions of PRIA (Section 12). Currently, experimental stewardship programs are being developed in the East Pioneer Area of southwestern Montana, the Modoc-Washoe of northeast California, northwest Nevada, and the Challis Area of central Idaho.

Issues

BLM is caught between two countervailing pressures: the need for reliable scientific information on range condition and trend and the deadlines of the Court's schedule for completing EIS's. The range science community is critical of adjustments in grazing use based upon inventory data collected during a single year. However, initial allocations will probably still have to be made based upon one year's inventory data; then condition and trend and utilization studies can be used to adjust further livestock use. BLM's contract with the National Academy of Sciences is designed to resolve the methodological and technical aspects of this problem. At the same time, however, it is clear that BLM needs a range management decision-making system which permits prompt management action based on existing information and good judgement, without making long-term decisions based on short-term data and without making it difficult to adjust those decisions in response to changing conditions on the ground.

Improving the productivity of the public rangelands often involves a mix of adjustments in grazing management with investments in improvements. Experience to date illustrates plainly that investments without proper stocking rates and grazing management can cause improvements to fail. Though the mix will vary from place to place, generally all elements (adjustments in grazing, investment in improvements, improved grazing methods and monitoring) are needed.

Western rangeland interests, from livestock operators to wildlife conservationists, want management actions based on reliable information. A major current criticism is that the margin of error created by the Bureau's financial and staff limitations for inventory data gathering is too great and the decisions on the allocation of forage among competing users are not backed up with reliable date.

Another key issue is the Bureau's inability in the past to follow up on management actions—adjustments in use and investments in improvements—with a monitoring program capable of identifying the degree to which the range is responding.

Many ranchers want the Bureau to eliminate reductions in livestock use altogether or phase them in gradually so that short-term economic hardships are lessened. In some 52 percent of the allotments covered in the first 22 EIS's, it was recommended that the livestock grazing level either be increased or left unchanged. Despite the fact that reductions in livestock grazing were recommended for less than half of the allotments covered by these EIS's, some operators fear that the reductions will put them out of business. A Congressional amendment to the Department of the Interior's 1980 budget which would limit reductions to no more than ten percent under specified circumstances demonstrates the high-level political concern associated with this issue.

In response to these concerns, the Bureau and a wide range of interests—ranchers, State officials, wildlife conservation and environmental organizations, range scientists, and economists—are jointly developing a new approach which will phase in grazing reductions where needed somewhat more gradually, though enough to demonstrate change; will make needed investments; and will monitor closely the results at stated intervals to make additional adjustments, either up or down, as indicated. Similarly, the Bureau is exploring methods of analyzing different combinations of reductions and investments in range improvements and grazing systems to determine which combination may work best in given situations.

The Bureau also needs to improve its ability to predict likely socioeconomic effects of its actions, in addition to traditional environmental effects, on individuals, communities, and regional economies.

It is clear from public comments that the Bureau needs (1) better data upon which to draw up its plans and base its actions, (2) a rational program for implementing decisions which reflects the reliability of the data and is sensitive to human as well as ecological impacts, and (3) a stronger monitoring program to ensure that both the national investment in improvement projects and the local investment in the form of livestock reductions produce desired results.

Inventory, planning, investments, adjustments, and management without monitoring provide no assurance of sustained increases in rangeland productivity. Consequently, a key element in BLM's new rangeland management program and budget strategy is a diligent follow-up of the effects of both changes in livestock use and investments in improvements on the condition of range vegetation. The Bureau cannot afford to make cuts in livestock use or investments without a sustained program to monitor the effects of actual use, weather, and improvements on range condition and trend.

Goals

The Bureau's goals in this program are to:

- Improve the condition of rangeland vegetation and maintain it at desired levels of quality, quantity, and diversity;
- Minimize short-term disruption and ensure the long-term growth of the western livestock industry and the economies of western communities dependent upon the public lands through cooperation in management; and
- Increase forage supplies for livestock, wild horses and burros, and wildlife as a principal output of the rangeland ecosystem.

Alternative Investment and Performance Levels

Significant differences between funding levels are found in inventories, monitoring, and maintenance. There is a difference of three million acres inventoried between Levels 1 and 2 and a difference of four million acres between Levels 2 and 3. The most significant differences involve the depth and accuracy of inventory data at the various levels. As funding increases, inventory data is based on higher-intensity surveys and sampling error is reduced. Monitoring involves supervision of use to ensure consistency with the allotment management plan, studies to observe changes in ecosystem condition, and recommendations to adjust grazing use if needed. At Level 1, the frequency and intensity of monitoring will be higher than at Level 2, while at Level 3 monitoring will be still less frequent and intensive. At all levels, the needs displayed are without consideration of whether the funding source is the FLPMA or the PRIA authorization.

Investments

Funding in Thousands (000) of 1980 Dollars

	Requested Appropriation[1]	Existing Authorization[2]		Authorization Analysis			
FY	1981	1981	1982	1982	1983	1984	1985
Level 1	45,726	37,350	39,218	75,474	81,071	92,604	109,994
Level 2	45,726	37,350	39,218	72,269	76,809	90,101	104,903
Level 3	45,726	37,350	39,218	64,863	76,306	82,751	98,095

Full-Time Permanent Positions

	Existing Ceiling[3]	Existing Authorization[2]		Authorization Analysis			
FY	1981	1981	1982	1982	1983	1984	1985
Level 1	765	786	802	980	1,030	1,061	1,113
Level 2	765	786	802	941	989	1,033	1,073
Level 3	765	786	802	861	931	983	1,007

[1] Revised President's Budget
[2] BLM Four-Year Authorization for Fiscal Years 1979-1982
[3] Established by the Department of the Interior

Performance

	Level 1	Level 2	Level 3
Service, Operations and Maintenance	24,600 permits issued annually (100 percent of demand).	24,600 permits issued annually (100 percent of demand).	24,600 permits issued annually (100 percent of demand).
	5,940 range improvements maintained (100 percent of need).	4,750 range improvements maintained (80 percent of need).	4,170 range improvements maintained (70 percent of need).
	130 million acres monitored (76 percent of total BLM grazing lands, 100 percent of acreage under Allotment Management Plans through 1985).	130 million acres monitored (76 percent of total BLM grazing lands, 100 percent of acreage under Allotment Management Plans through 1985).	130 million acres monitored (76 percent of total BLM grazing lands, 100 percent of acreage under Allotment Management Plans through 1985).

Management Planning Analysis[1]	Not Applicable	Not Applicable	Not Applicable
Inventory	63 million acres inventoried (59 percent of present inventory need).	60 million acres inventoried (56 percent of present inventory need).	56 million acres inventoried (52 percent of present inventory need).
Planning[1]	Not Applicable	Not Applicable	Not Applicable
Activity Planning	2,870 Allotment Management Plans completed (100 percent of grazing allotments covered by Environmental Statements through 1984).	2,870 Allotment Management Plans completed (100 percent of grazing allotments covered by Environmental Statements through 1984).	2,870 Allotment Management Plans completed (100 percent of grazing allotments covered by Environmental Statements through 1984).
Implementation	14.3 million acres of rangeland improved (11 percent of acreage currently in poor or fair condition). 10,200 allotments supervised (48 percent of total allotments).	10.1 million acres of rangeland improved (more than seven percent of acreage currently in poor or fair condition). 8,910 allotments supervised (42 percent of total allotments).	9.9 million acres of rangeland improved (seven percent of acreage currently in poor or fair condition). 8,810 allotments supervised (41 percent of total allotments).

[1] Performance outputs for these elements are multi-resource in nature and are described under "Planning and Inventory Coordination."

Relationship to Other Programs

Range management is an integral component of the overall program for managing rangeland ecosystems, other components of which include wild horse and burro management; soil, water and air management; and wildlife habitat management.

Public Rangeland Improvement Act

The Public Rangeland Improvement Act (PRIA) authorization is in addition to any funding requested by the Secretary under the provisions of FLPMA for management of range, soil, air and water, and wildlife. PRIA funds that are not appropriated in any fiscal year remain available for appropriation in subsequent years. The authorization for fiscal years 1980 through 1982 is $15 million per year; in fiscal years 1983 through 1986, the amount authorized is to be no less than that authorized in fiscal year 1982.

Range Improvement Funds

These funds are derived from grazing fees and certain mineral leasing receipts collected during the previous year. FLPMA provides that 50 percent of grazing fees are available for appropriation, in addition to the amount designated for range improvements from grazing fees and mineral leasing receipts from Bankhead-Jones Farm Tenant Act lands. When appropriated, these funds are used for development and maintenance of rangeland facilities such as fences, water developments, and cattleguards.

These funds are expected to be approximately $13 million annually over the FY 1982-1985 period. The need for and availability of these funds was considered in developing the four-year authorization, but they are not included in the alternative authorization levels. They will be used for implementation work additional to that funded under the FLPMA and PRIA authorizations to carry out activity planning decisions.

WILD HORSE AND BURRO MANAGEMENT

The Wild Free-Roaming Horse and Burro Act of 1971 directed the Secretaries of the Interior and Agriculture, through BLM and the Forest Service respectively, to protect and manage—in ecological balance with other resource values—all unbranded and unclaimed horses and burros on the public lands and national forest lands. It also established a maximum penalty of $2,000 and one-year imprisonment for harassing, capturing, killing, or selling a wild horse or burro.

The 1971 Act was amended by FLPMA to allow the use of helicopters for rounding up the animals and motor vehicles for transporting them. The Public Rangelands Improvement Act of 1978 (PRIA) further amended the 1971 Act and substantially strengthened the program. PRIA required that the Secretaries maintain current inventories of wild horses and burros and determine optimum population levels. Animals in excess of these levels are to be removed for adoption or destruction. PRIA provides for the transfer of title to a maximum of four adopted animals per person after one year of humane care. In addition, PRIA directed the Secretaries of the Interior and Agriculture, through BLM and the Forest Service, to contract with the National Academy of Sciences for a research program to provide critically needed scientific information for improving wild horse and burro management.

Since its inception, wild horse and burro management has been a controversial program, highlighting the stark contrasts between the natural appeal of free-roaming animals and the destructive effect overpopulation can have on fragile range ecosystems. At the center of this controversy are the fundamental questions of whether there are too many horses in some areas and, if so, how their population can best be controlled. BLM last inventoried wild horse and burro populations in 1978, when about 54,000 horses and 9,000 burros were estimated to be on public lands in 10 western States. Approximately 80 percent of the burros were concentrated in Arizona and California and 80 percent of the horses were located in Nevada and Wyoming. These populations have since increased from the offspring from two breeding seasons, despite roundups concluded during 1978 and 1979.

To guide the management of wild horses and burros on the range, BLM develops Herd Management Area Plans designed to place the animals' space, shelter, forage, and water requirements in balance with other range resource uses. Desirable population levels are based on range suitability and historic use, climate, and topography. Herd characteristics are given particular attention in developing plans.

When excess wild horses or burros have to be removed, BLM develops a capture plan outlining the method, timing, and sequence of events from the beginning of capture to disposal of the animals. The animals are taken to the nearest BLM holding facility, where they are examined by a veterinarian, vaccinated for communicable diseases, and given any other required medical attention.

The principal mechanism in BLM for disposing of excess animals is the nationwide Adopt-A-Horse program, which was started in the spring of 1976. Under the program, approved applicants can receive up to four animals per year. The animals are adopted from BLM's western holding facilities or from contract distribution centers in Eugene, Oregon; Valley Mills, Texas; Cross Plains, Tennessee; and Spanaway, Washington.

Current Status

By the end of FY 1979 herd management plans had been developed for 25 of the 125 wild horse and burro herd areas. During the same year, BLM captured 5,867 animals, and 5,633 wild horses and burros were adopted. Since the start of the Adopt-A-Horse program, over 6,000 individuals have adopted 18,030 horses and burros. At the end of FY 1979, 12,000 applications were pending.

Current costs to the adopter are about $90-160, for vaccination, examination, handling, and transportation expenses. BLM costs for capturing and placing animals through its western holding facilities in Burns, Oregon; Rock Springs, Wyoming; Susanville, California; and Reno, Nevada, were $300-450 per animal.

The program consists of two elements: management of wild horses and burros as part of the rangeland ecosystem, and activities relating to those animals that must be removed from the ecosystem to maintain rangeland productivity and multiple-use objectives.

As Resource Management Plans are completed, appropriate wild horse and burro population levels are determined, based on the forage that is available for all competing uses. The herds are then maintained or reduced to the appropriate level. It now requires approximately 50 percent of BLM's management capability in this program to remove excess animals from the public rangelands.

The Bureau has established new contract centers in eastern areas near major population centers to help ensure a sufficient number of adopters for the large number of excess animals now being gathered annually.

The program requires strong law enforcement support to comply with the provisions of the Wild Free-Roaming Horse and Burro Act of 1971. Monitoring the condition of adopted animals until title is transferred is a continuing responsibility that will be handled through cooperative agreements with local humane societies or, when this is not possible, by BLM personnel. Investigation of reported abuse must be completed in a timely manner and material must be prepared for expeditious prosecution of violators.

The Public Rangelands Improvement Act requires BLM to undertake studies necessary to determine appropriate wild horse and burro management levels and to contract for research that will improve knowledge of population dynamics and of the interrelationships of wild horses and burros with other competing uses. These studies and research projects were started in FY 1980 and will continue through FY 1982. A report to the Senate and the House of Representatives will be submitted by January 1, 1983.

Issues

Management of wild horses and burros, livestock, and wildlife is central to the issue of rangeland productivity. Total use must be within the productive capability of rangeland ecosystems. Balancing uses will in many cases require substantial reductions in wild horse and burro populations. This is particularly true in Nevada, where concentrations are heaviest, ecosystems most fragile, and range conditions most deteriorated.

Public sentiment about the management of wild horses and burros runs heavily in two extremes. Some wild-horse enthusiasts maintain that the animals should roam free and unregulated and reach population balance naturally through starvation when forage runs out, thus ignoring such other uses as wildlife and livestock. Ranchers, particularly in the areas of highest concentration, want the animals removed altogether and see them as destructive and non-productive to society.

Five key requirements for the success of the Bureau's Wild Horse and Burro program are: support for implementing management plans (including roundup and distribution activities); support for enforcement of regulations prohibiting inhumane treatment and commercial use of adopted horses; support for investigations of theft, abuse, and harassment of free-roaming animals on public lands; support for completing the research recommended by the National Academy of Sciences; and support for promoting the adoption program to minimize the need for destruction of animals.

Although PRIA calls for destruction of old, sick, or lame animals and excess animals for which no adoption demand exists, present Secretarial policy is to place all healthy animals under adoption (only sick or lame animals may be destroyed). As management plans are developed and more excess animals become available for adoption, it is reasonable to expect, based on past experience, that the supply of older animals will exceed the demand and that some healthy animals may have to be destroyed. In the coming months, BLM will begin addressing alternative methods for disposing of excess animals for which no adoption demand exists.

Based on a recent court ruling, *Roaring Springs Associates* v. *Andrus*, BLM has to remove wild horses and burros from public rangelands where such lands are unfenced and interspersed with private holdings. In this case, plaintiffs were successful in having wild horses removed from their lands, based on a provision in the Wild Free-Roaming Horse and Burro Act requiring horses and burros to be removed upon request of a private landowner. Since most of the public land in the West is intermingled among private lands, such removal would eliminate herds in certain areas and would be expensive and time-consuming. The Administration has initiated a legislative proposal in this regard that would limit an agency's responsibility to situations where the private land is fenced and a written request is made for removal of the horses and burros.

Goals

The Bureau's goal is to ensure a sustainable population of healthy free-roaming wild horses and burros in equilibrium with their habitat and other resource values, consistent with the principles of multiple-use.

Any animals that are removed from public lands are to be cared for or destroyed in a humane and efficient manner.

Alternative Investment and Performance Levels

The significant difference between funding Levels 1 and 2 is the number of areas that will be covered by Herd Management Area Plans and the rate at which these plans will be implemented. Level 1 provides for preparation of 83 plans and implementation of the plans within four years of completion. Level 2 will allow completion of 66 plans and implementation of those plans within six years of completion. The activity planning phase includes identification of desirable herd characteristics such as age distribution, sex ratios, and color characteristics; definition of management actions needed to implement plans, and specification of facilities needed for proper management.

At Level 3, inventories will be conducted only on those areas of the highest priority, plans will be developed for 57 percent of the areas where maintenance of wild horse populations is anticipated, and implementation will be completed eight years after plans are developed.

Investments[4]

Funding in Thousands (000) of 1980 Dollars

	Requested Appropriation[1]	Existing Authorization[2]		Authorization Analysis			
	FY 1981	FY 1981	1982	FY 1982	1983	1984	1985
Level 1	6,051	9,960	10,582	9,227	9,677	9,933	10,745
Level 2	6,051	9,960	10,582	8,760	9,149	9,365	10,073
Level 3	6,051	9,960	10,582	7,059	7,502	7,613	8,076

Full-Time Permanent Positions

	Existing Ceiling[3]	Existing Authorization[2]		Authorization Analysis			
	FY 1981	FY 1981	1982	FY 1982	1983	1984	1985
Level 1	57	84	100	79	87	85	90
Level 2	57	84	100	74	81	81	85
Level 3	57	84	100	57	71	71	75

[1] Revised President's Budget
[2] BLM Four-Year Authorization for Fiscal Years 1979-1982
[3] Established by the Department of the Interior
[4] Investment figures for Wild Horse and Burro Management are included under Range Management Investment due to existing funding structure. They are shown separately here for information purposes only.

Performance

	Level 1	Level 2	Level 3
Service, Operations and Maintenance	53,000 wild horses and burros will be removed from rangelands. It is anticipated that 97 percent of these animals will be adopted and the remainder—old, sick, or lame animals—will be humanely destroyed. About 36,000 title transfers will be made.	53,000 wild horses and burros will be removed from rangelands. It is anticipated that 97 percent of these animals will be adopted and the remainder—old, sick, or lame animals—will be humanely destroyed. About 36,000 title transfers will be made.	32,000 animals will be removed from rangelands. It is anticipated that 97 percent of these animals will be adopted and the remainder—old, sick, or lame animals—will be humanely destroyed. Approximately 21,000 title transfers will be made.
Management Planning Analysis[1]	Not Applicable	Not Applicable	Not Applicable

Inventory	85 million acres inventoried for wild horses and burros (21 million acres annually).	85 million acres inventoried for wild horses and burros (21 million acres annually).	76 million acres inventoried (19 million acres annually).
Planning[1]	Not Applicable	Not Applicable	Not Applicable
Activity Planning	83 herd-area management plans completed (100 percent of areas where management of wild horses is anticipated).	66 herd-area management plans completed (79 percent of areas where management of wild horses is anticipated).	48 herd-area management plans completed (57 percent of areas where management of wild horses is anticipated).
Implementation	Implementation initiated on each herd-management plan completed.	Implementation initiated on each herd-management plan completed.	Implementation initiated on each herd-management plan completed.

---

[1] Performance outputs for these elements are multi-resource in nature and are described under "Planning and Inventory Coordination."

Workloads/Outputs

Animals Removed

FY	1981	1982	1983	1984	1985
Level 1	10,500	11,300	14,250	13,200	13,900
Level 2	10,500	11,300	14,250	13,200	13,900
Level 3	10,500	9,920	12,520	4,440	4,770

Herd Management Area Plans Implemented

FY	1981	1982	1983	1984	1985
Level 1	15	26	19	20	18
Level 2	15	17	13	13	23
Level 3	15	18	12	10	8

Acres Inventoried
in Thousands (000)

FY	1981	1982	1983	1984	1985
Level 1	18,940	20,500	20,500	21,780	22,000
Level 2	18,940	20,500	20,500	21,780	21,300
Level 3	18,940	18,940	18,940	18,940	18,940

Relationship to Other Programs

Wild horse and burro management is an integral component of the overall program for managing rangeland ecosystems, other components of which include range management; soil, water and air management; and wildlife habitat management.

SOIL, WATER AND AIR MANAGEMENT

Protection, conservation, and management of the soil, water, and air resources of the public lands are basic responsibilities of BLM and are central to both the short-range and long-term objectives of Bureau programs. Increased environmental awareness and concern for these resources resulted in several new laws and executive orders in the last decade, among them the Federal Water Pollution Control Act Amendments, Safe Drinking Water Act, Clean Water Act, Colorado River Salinity Control Act, Clean Air Act, the National Environmental Policy Act, and Executive Orders Number 11988 on Floodplain Management and Number 11990 on Protection of Wetlands.

The Soil, Water and Air Management program provides the basic inventory and management information required in the development of land use and activity planning, grazing environmental impact statements, energy-related development, and other anticipated public land uses.

The program also supports studies and research to improve the effectiveness of water quality and quantity, air quality, and erosion and watershed management practices.

Current Status

There are an estimated 95,000 current water uses on public lands that must be identified and quantified to ensure the continuation of a wide array of authorized public land uses dependent upon water. The Soil, Water and Air Management program provides BLM with the capability to inventory and conduct field investigations to identify and quantify water uses on the public lands.

In the past three fiscal years, 4.9 million acres have been inventoried and over 1,000 studies have been conducted, roughly three percent of the total workload in water use identification and quantification faced by the Bureau, or one percent per year of effort at the current level.

Issues

Few issues are more hotly contested in the West than water rights. The slowness of the Bureau's water inventory process has become a major point of conflict between the Bureau and the western States. Obviously, the lack of systematically inventoried water use and water source information reduces the Bureau's ability to meet responsibly court-imposed water right adjudication schedules. If the Bureau is unable to prepare its water filings on time, it stands to lose rights necessary for increasing the productivity and supporting the use of public lands and resources now and in the future. All issues are not just consumptive development-related uses of water, but also such non-consumptive demands as instream flow needs to support fisheries, recreational use, water quality, and channel stability on public lands. Another expressed but as yet largely unaddressed need is the identification and quantification of groundwater resources of public lands.

The Bureau faces an increasing demand for soil, water, and air quality monitoring capability, particularly in connection with States and other Federal agencies, for energy, recreation, timber, and range, and land transaction proposals. Data management implications of this program have not been fully considered.

Bureau participation in a variety of additional soil, water, and air-related programs—the Missouri Basic Hydrology study, salinity control in the Colorado River Basin, conversion of brushland in range and forest land programs to increase water yield, such as the King Range National Conservation Area, and others—has been limited by the availability of staff.

Goals

- Reduce erosion, minimize sedimentation and siltation, promote infiltration, and ensure the stability and productivity of all public lands;
- Ensure that water of sufficient quantity and quality is available to provide for the basic needs of the vegetation, protect groundwater recharge, meet Federal and State water-quality standards, and provide for recognized uses;
- Regulate and manage flood plains and wetlands to ensure protection of people and property and to improve and conserve riparien systems; and
- Ensure that public land uses are in compliance with air quality standards.

Alternative Investment and Performance Levels

Principal emphasis in this program will be to provide needed soil, water, and air data for the coal leasing and the rangeland management programs. Within the base level program, completion of the inventory of water uses and securing water rights in 32,850 areas is planned by 1985. Bureau planning efforts will emphasize BLM participation in State Air Quality Implementation Plans and State planning under Section 208 of the Federal Water Pollution Control Act. The target under Level 1 is to complete and implement one "208" plan per state and implement 15 water yield improvement projects by 1985.

Investments

Funding in Thousands (000) of 1980 Dollars

	Requested Appropriation[1]	Existing Authorization[2]		Authorization Analysis			
	FY 1981	FY 1981	1982	FY 1982	1983	1984	1985
Level 1	22,703	26,270	33,490	34,796	37,009	36,642	36,761
Level 2	22,703	26,270	33,490	33,248	35,118	34,800	34,559
Level 3	22,703	26,270	33,490	29,033	33,863	34,752	34,861

Full-Time Permanent Positions

	Existing Ceiling[3]	Existing Authorization[2]		Authorization Analysis			
	FY 1981	FY 1981	1982	FY 1982	1983	1984	1985
Level 1	215	395	420	461	518	557	527
Level 2	215	395	420	443	491	531	504
Level 3	215	395	420	378	379	389	392

---

[1] Revised President's Budget
[2] BLM Four-Year Authorization for Fiscal Years 1979-1982
[3] Established by the Department of the Interior

	Performance		
	Level 1	**Level 2**	**Level 3**
Service, Operations and Maintenance	Effort will be concentrated on identification of earthen water structures requiring maintenance. 920 facilities will be maintained (5 percent of total number of structures).	860 facilities maintained (4 percent of total number of structures).	800 facilities maintained (4 percent of total number of structures).
Management Planning Analysis[1]	Not Applicable	Not Applicable	Not Applicable
Inventory	59 million acres of soils inventory conducted (35 percent of present inventory need).	59 million acres of soils inventory conducted (35 percent of present inventory need).	57 million acres of soil inventory conducted (34 percent of present inventory need).
	134 million acres of water inventory conducted with high-quality data (89 percent of present inventory need).	134 million acres of water inventory (89 percent of present inventory need) with acceptable data quality.	134 million acres of water inventory (89 percent of present inventory need) with data quality lower than at Levels 1 and 2.
	90 million acres of air quality-related inventory will be conducted (60 percent of present inventory need).	75 million acres of air quality inventory will be conducted (50 percent of present inventory need).	68 million acres of air quality inventory will be conducted (45 percent of present inventory need).
	32,850 water rights filings (66 percent of total anticipated filings).	32,850 water rights filings (66 percent of total anticipated filings).	23,500 water rights filings (47 percent of total anticipated filings).
Planning[1]	Not Applicable	Not Applicable	Not Applicable
Activity Planning	Input to 12 "Section 208" plans completed.	Input to nine "Section 208" plans completed.	Input to six "Section 208" plans completed.
Implementation	Fifteen water-yield improvement projects implemented.	Ten water-yield improvement projects implemented.	Five water-yield improvement projects implemented.
	Twelve "Section 208" plans implemented.	Nine "Section 208" plans implemented.	Six "Section 208" plans implemented.

[1] Performance outputs for these elements are multi-resource in nature and are described under "Planning and Inventory Coordination."

Relationship to Other Programs

Soil, water and air management is an integral component of the overall program for managing rangeland ecosystems, other components of which include range management, wild horse and burro management, and wildlife habitat management.

WILDLIFE HABITAT MANAGEMENT

The public lands are home to one out of every five of the big game animals in the United States, including most of the caribou, brown and grizzly bears, and desert bighorn sheep, 50 percent of the moose, 65 percent of the mule deer, and 45 percent of the antelope. In addition, BLM manages 47 million acres of wetlands, 30 million acres of riparian habitat, 669,000 miles of perennial streams, and nearly 5 million surface acres of lakes and reservoirs. These areas contain over 90,000 miles of prime trout and other sportfish streams. BLM lands support hundreds of non-game wildlife as well, and other game species. In short, BLM manages more wildlife habitat than any other Federal or State agency.

The settlement of the West resulted in dramatic changes in wildlife populations and wildlife habitat during the 19th century. As State hunting and fishing regulations and other programs took effect, fish and wildlife populations started to recover and the adequacy of habitat became a primary concern. The 1934 Taylor Grazing Act required that adequate wildlife forage be provided on the public rangelands, but forage allocation was based on little specific data on wildlife habitat requirements and was often arbitrary.

FLPMA recognized wildlife as one of the principal uses of the public lands. It also further increased BLM's authority and responsibility to manage, protect, and enhance wildlife and fishery resources. Since the passage of the Sikes Act in 1974 and FLPMA in 1976, BLM has increased its effort to inventory, plan for, and implement on-the-ground management and development of terrestrial and aquatic wildlife habitat. Wildlife staffs work closely with other BLM program staffs to develop and implement land use planning strategies, to identify protective provisions in leases, licenses, and permits, and to develop and implement management plans that provide intensive management for key wildlife habitat areas. BLM biologists are also incorporating wildlife provisions in plans for livestock grazing, mineral development, and forest management.

Endangered species legislation passed in the late 1960's and 1970's added a new dimension to management of the Nation's wildlife by providing a mandate to conserve and manage ecosystems essential to fauna and flora in danger of extinction. It clearly directed Federal agencies to protect the continued existence of such threatened and endangered species. Over 40 Federally listed threatened and endangered plant and animal species have been identified on the public lands. A complete inventory of the location and habitat of these species is being completed. There are also 60 State-listed threatened and endangered species on public lands.

BLM works in partnership with State wildlife agencies to carry out its mission of managing fish and wildlife habitats on the public lands and the Outer Continental Shelf and ensuring that wildlife needs are considered in all land use planning decision making. The Sikes Act of 1974 added impetus to such cooperative planning and management with State wildlife agencies by authorizing conservation and rehabilitation programs on public lands and directing the Secretary of the Interior to implement cooperative programs for fish and wildlife with State fish and game agencies.

BLM has executed memoranda of understanding and numerous cooperative agreements with 14 western State fish and game agencies and with one State agency in the East. The wildlife habitat management program is based on a long-standing division of responsibility in which the States are responsible for wildlife population management while BLM is responsible for managing wildlife habitat on public lands. Habitat for non-game and game species on the public lands is identified for management in each State. The Bureau and State agencies jointly work toward accomplishing the objectives set for each species and its habitat. By stabilizing and improving habitat on public lands, BLM helps compensate for population losses caused by declining habitat on private lands. The interdependence of habitat and population management makes the close coordination between BLM and the States a critical element in BLM's wildlife management program. There is a direct relationship between funding for wildlife habitat management and the effectiveness of State efforts to improve and manage wildlife populations.

Current Status

The growth of BLM's commitment to protecting and enhancing wildlife habitat and ensuring that wildlife requirements are considered in land use and activity plans, environmental assessments, and project proposals is reflected in the steady increase in funding allocations for wildlife programs in recent years. The number of work years devoted to wildlife management, for example, was 227 in 1978, increased to 341 in fiscal year 1979, and is planned at 389 for fiscal year 1980. Overall, wildlife funding has increased 311 percent since FY 1977.

Efforts to strengthen BLM's partnership with the States continue. The Bureau is expanding State input into land use planning by placing greater reliance on State-conducted species inventories and increasing consultation at key milestones in the planning process. BLM is also seeking more State input in the formulation of priorities, plans, and implementation activities for Sikes Act cooperative habitat management projects (142 Sikes Act Habitat Management Plans are now being implemented in cooperation with 12 State agencies on 20 million acres of land).

BLM is a full participant in 15 interagency teams working to increase endangered species populations to the point where they can be removed from the endangered species list. In addition, BLM completed some 1,500 consultations with the Fish and Wildlife Service and Marine Fisheries Service in 1979 regarding proposed actions with potential impacts on threatened or endangered species and their habitats.

For example, BLM is participating in a detailed study of the California Condor to identify the location of suitable habitat and possible means to reestablish populations of the critically threatened species. The study is a cooperative effort of the Bureau, the Forest Service, the Fish and Wildlife Service, and the Audubon Society.

Special attention is also focused on several key wildlife management activities, among them:

- **The Snake River Birds of Prey National Conservation Area Proposal** BLM issued a final environmental impact statement in February 1980 on its proposal to establish the Snake River Birds of Prey National Conservation Area in Idaho to meet the birds' habitat needs. This is one of the most significant ecosystems in the world for hawks, owls, eagles, and other birds of prey and was highlighted in the President's Environmental Message of 1979. Legislation to create a national conservation area and provide permanent protection for this unique wildlife habitat was transmitted to Congress on April 1, 1980.

- **Bighorn Sheep Restoration and Management** Populations are being reestablished in five States (Arizona, Colorado, Nevada, New Mexico, and Utah) and management programs are being implemented on key habitats in two States (Idaho and Wyoming).

- **California Desert Wildlife Management** BLM developed a draft desert-wide management program and EIS for 25 million acres of the California Desert for, among other things, the management and protection of desert wildlife.
- **Tule Elk Restoration in California** BLM cooperated with the California Department of Fish and Game and others to develop and implement statewide and site-specific plans to restore Tule Elk populations to viable levels and prevent their becoming a threatened or endangered species.
- **Proposed Withdrawals for Desert Tortoise** BLM has proposed, as authorized by FLPMA, the withdrawal as a natural area of 28,000 acres of exceptionally valuable habitat to protect desert tortoise populations in Kern County, California.

The steady increase in development of privately owned lands has significantly increased the importance of the public lands for wildlife. At the same time, however, the Bureau itself is involved, because of its multiple-use mandate, in projects and programs that may adversely affect wildlife habitat, such as energy development, intensive recreational use, competition for forage with livestock and wild horses, and so forth. Offshore and onshore oil and gas development in Alaska, affecting subsistence resources critical to Alaska natives, is a concern of special importance. The responsibility of the Wildlife Habitat Management program is to ensure that wildlife needs are fully considered in such decisions.

Despite improving cooperation with other land-administering and wildlife agencies, special emphasis and improvement is needed in data collection and management activities, particularly with respect to threatened and endangered wildlife species habitat. Increased effort is needed to improve consultation processes, impact assessment, and implementation of specific recovery plans.

On November 9, 1979, the Secretary of the Interior announced a revised Federal policy on the control of damage to livestock caused by predatory animals, primarily coyotes, in the West, a subject of perennial controversy among stockmen. The program is designed to reduce conflicts among wildlife, predators, and livestock in a more environmentally acceptable manner. The key responsibility for implementation lies with the Fish and Wildlife Service. The Bureau and the Forest Service are participating with the Fish and Wildlife Service on an interagency work group to coordinate implementation of the policy on the lands they administer.

Other issues warranting further attention include: managing anadromous fish habitat; increasing the emphasis on non-game species, as well as improving habitat for game animals in some areas; and identifying areas that may require designation and special management to protect important wildlife values. Since many rural communities are economically dependent upon wildlife-related recreation use, there is an opportunity for increasing emphasis on wildlife management in these areas, consistent with the President's Small Community and Rural Development Program. A somewhat unique issue is the conflict created by potential expansion of reindeer grazing in areas currently used by caribou in Alaska.

Goals

- Improve the productivity of public lands by providing wildlife habitat data necessary to integrate wildlife resource considerations into all land use decisions, especially those involving rangeland and forest land production, energy and mineral development, and recreation.
- Protect and enhance habitat for threatened and endangered species, and ensure that BLM takes no actions which would jeopardize the continued existence of these species.
- Maintain and improve fish and wildlife habitat on public lands through the development and implementation of habitat management plans (HMPS's).
- Respond to changing national needs through identification and management of special areas with unique values for wildlife, such as wetlands and national conservation areas.

Alternative Investment and Performance Levels

The wildlife habitat management program includes: data collection and inventories of wildlife habitat; research and studies to facilitate efficient habitat management; development of activity plans to implement Resource Management Plan decisions; development and maintenance of facilities to improve wildlife habitat; and consultation on actions that may affect threatened and endangered species or their habitat.

Investments

Funding in Thousands (000) of 1980 Dollars

	Requested Appropriation[1]	Existing Authorization[2]		Authorization Analysis			
	FY 1981	**FY 1981**	**1982**	**FY 1982**	**1983**	**1984**	**1985**
Level 1	17,942	24,775	32,494	28,159	29,682	31,558	33,773
Level 2	17,942	24,775	32,494	24,594	25,851	27,533	29,417
Level 3	17,942	24,775	32,494	22,278	24,612	27,001	29,883

Full-Time Permanent Positions

	Existing Ceiling[3]	Existing Authorization[2]		Authorization Analysis			
	FY 1981	**FY 1981**	**1982**	**FY 1982**	**1983**	**1984**	**1985**
Level 1	194	221	261	295	393	401	428
Level 2	194	221	261	268	346	353	376
Level 3	194	221	261	254	295	314	342

[1] Revised President's Budget
[2] BLM Four-Year Authorization for Fiscal Years 1979-1982
[3] Established by the Department of the Interior

The primary difference among levels is the amount of maintenance performed, the level of inventory conducted, and the quality (comprehensiveness, specificity) of activity planning completed. Level 1 includes 13 percent more maintenance than Levels 2 and 3. Inventories at Level 1 will cover 56 million more acres than at Level 2 and 83 million more acres than at Level 3. Acreage covered by activity planning and implementation will remain the same at all levels.

Performance

	Level 1	Level 2	Level 3
Service, Operations and Maintenance	8,400 wildlife improvements will be maintained, including fences; guzzlers, and other types of water facilities; streambank stabilization and stream-habitat improvements (52 percent of existing improvements).	6,250 wildlife improvements will be maintained (39 percent of existing improvements).	6,250 wildlife improvements will be maintained (39 percent of existing improvements).
Management Planning Analysis[1]	Not Applicable	Not Applicable	Not Applicable
Inventory	Approximately 160 million acres will be inventoried.	Approximately 104 million acres will be inventoried.	77 million acres will be inventoried.
Planning[1]	Not Applicable	Not Applicable	Not Applicable
Activity Planning	219 habitat management plans will be completed at this level to guide development of habitat management and to specify improvements.	160 habitat management plans will be prepared. Quality of the plans will be lower than at Level 1 because inventory data will be less comprehensive.	101 habitat management plans will be prepared. Quality will be lower still due to less comprehensive inventories.
Implementation	37.5 million acres of habitat will be improved (11 percent of acreage needing improvement). 11,300 miles of stream will be improved (2 percent of miles of stream needing improvement).	37.5 million acres of habitat will be improved (11 percent of acreage needing improvement). 11,300 miles of stream will be improved (2 percent of miles of stream needing improvement).	37.5 million acres of habitat will be improved (11 percent of acreage needing improvement). 11,300 miles of stream will be improved (2 percent of miles of stream needing improvement).

[1] Performance outputs for these elements are multi-resource in nature and are described under "Planning and Inventory Coordination."

Workloads/Outputs

	Facilities Maintained					Miles of Stream Improved				
FY	1981	1982	1983	1984	1985	1981	1982	1983	1984	1985
Level 1	807	1,117	1,539	2,769	3,019	1,933	2,361	2,426	3,078	3,433
Level 2	807	981	1,217	1,906	2,146	1,933	2,361	2,426	3,078	3,433
Level 3	807	981	1,217	1,906	2,146	1,933	2,361	2,426	3,078	3,433

Acres Inventoried
in Thousands (000)

FY	1981	1982	1983	1984	1985
Level 1	28,200	47,100	42,800	34,700	35,000
Level 2	28,200	38,200	36,100	17,500	12,000
Level 3	28,200	30,000	24,000	15,000	8,000

Acres of Habitat Improved
in Thousands (000)

FY	1981	1982	1983	1984	1985
Level 1	6,300	7,100	8,100	10,500	11,800
Level 2	6,300	7,100	8,100	10,500	11,800
Level 3	6,300	7,100	8,100	10,500	11,800

Relationship to Other Programs

Wildlife habitat management is an integral component of the overall program for managing rangeland ecosystems, other components of which include range management; wild horse and burro management; and soil, water and air management.

FOREST MANAGEMENT

Approximately 117 million acres, one-quarter of the total land under BLM's jurisdiction, are forest lands. Most of the land (91 million acres) is in Alaska, but development of Alaskan timber has been deferred until State selections, native claims, withdrawals, and other dispositions are completed. Of the remaining 26 million acres of forest land in the West, 4 million acres are capable of producing high-quality commercial timber in quantities sufficient to warrant intensive management. The remaining 22 million acres are less valuable as a source of commercial timber but do produce posts, poles, Christmas trees, and firewood—an item of dramatically increasing public interest and importance. These lands are managed less intensively than commercial timber lands, with primary activities aimed at controlling insects, disease, and trespass and providing wildlife habitat and soil and moisture stabilization.

By far the most valuable of the timber lands managed by BLM are the 2.4 million acres in Oregon known as the "Oregon and California railroad grant lands" and the "Coos Bay Wagon Road grant lands." These lands were originally granted in the 1800's to private railroad and wagon road developers but were returned to the Federal government when the developers failed to meet the terms of their land grants. Located in the Douglas-fir region of western Oregon, these are among the most productive forests in the country. They produce 1.172 billion of the total of 1.282 billion feet of timber produced annually on all BLM-managed land—about two percent of the total national production or 20 percent of western Oregon's production—and enough to build 86,000 three-bedroom houses. The estimated value of all public land timber is $15 billion.

In contrast to western Oregon, the public forest lands in the remaining western regions tend to be scattered, often in small parcels, and have lower productivity. Annual timber offerings from the other public lands have declined during the past five years due to major environmental assessment requirements and increased public pressure for fuelwood. Although forest development activities are being accomplished on many harvested lands, other commercial forest lands require reforestation, site improvement, or stand improvement to achieve full sustained productive levels.

Current Status

BLM is currently updating land use and timber management plans for the four million acres of high-product-value timber lands under its jurisdiction. This process includes the preparation of Environmental Impact Statements for the major forested areas in western Oregon, northern California, and northern Idaho. The new plan for the Josephine Unit in southwestern Oregon was adopted in September 1979 and is the first of 16 plans scheduled to be developed for these States by 1983.

On June 12, 1979, the President directed BLM and the Forest Service to expedite development of these plans to increase timber harvests by departing from the historic, nondeclining even-flow harvest policy. The new policy permits the accelerated harvest of overmature timber, where environmentally and economically feasible. This accelerated harvest, however, will be tempered in some instances by reductions in the allowable cut level made to meet other multiple-use requirements. Currently, the Josephine plan recommends a modest reduction while the Jackson-Klamath, Oregon, plan now being developed could recommend an increase. The Forest Service RPA assessment estimates that "other public" timber supply, which includes BLM, must increase from 4,628 billion board feet in 1976 to 4,830 billion board feet in 1990 to meet anticipated demand.

Issues

There are significant opportunities for increasing the production of timber and other wood products on forest lands and woodlands administered by the Bureau. A fundamental issue in any forest management program is the ability to meet predetermined annual harvest objectives. The formula for determining the annual harvest is a complex one, involving reforestation rates, thinning, salvage, brush and hardwood control, and stand conversion goals. A change in any one of these dollar- and manpower-intensive elements will of necessity affect the other elements and the annual harvest target.

Certainly the most controversial aspects of forest-land management—on public lands managed by BLM and elsewhere—is the use of herbicides. Following the release in March 1979 of an Environmental Statement on the use of herbicides in western Oregon, BLM discontinued the use of Silvex, or 2, 4, 5-TP. BLM discontinued the use of 2,4,5-T in the early 1970's. The current policy is to use non-chemical alternatives in place of herbicides to the maximum degree feasible and to use approved herbicides only under stringent controls to minimize risks to human health. The issue of the relative cost of mechanical and chemical methods of controlling unwanted growth is one of continuing controversy. If it is in the interest of public health to decrease further the use of approved herbicides and if studies show that alternative control is more expensive, then either the annual harvest rate will have to be reduced with resultant economic impacts or the levels of investment in timber management will have to be increased to sustain the annual harvest rate.

BLM administers approximately 20 million acres of forest lands that do not produce commercial sawtimber and other manufactured products. However, these lands contain an estimated 200 million cords of wood or the energy equivalent of 761 million barrels of fuel oil. In addition, commercial timber harvesting creates considerable residues with significant energy potential.

Public demand for fuelwood and interest in energy-related slash utilization have increased dramatically in the last two years as other energy prices have skyrocketed. BLM field offices have seen extraordinary increases in firewood use authorization requests, and field offices are struggling to meet the demand. In addition, the Bureau has begun to examine the potential economic, social, technical, and environmental implications of expanded programs of slash utilization for energy production.

Several other issues of concern were raised during the consultation process, including the need to examine the supply, value, and potential of Alaskan forest lands, particularly those above the Arctic Circle; the lack of a timber management plan for timbered islands in Minnesota and the Great Lakes managed by BLM; and the potential for converting brushlands to timber in some portions of the Kind Range National Conservation Area in California.

Goals

Principal goals of the Bureau's forest management program are to:

- Update timber management plans, and meet an NRDC court agreement for completing EAR and EIS schedules;
- Supply the full annual allowable harvest over the next decade;
- Optimize timber site productivity; and
- Meet the increasing public demand for fuelwood as an energy alternative, and explore the renewable energy potential on noncommercial low productive forest lands.

Alternative Investment and Performance Levels

The major emphasis of the program at all levels is meeting full annual allowable harvest objectives. This involves updating timber management plans to account for changes resulting from development of land use plans, assessment of the environmental impacts associated with plan implementation, and work involved in preparation and administration of timber sales.

The Bureau's multiple-use mandate has had the effect of reducing somewhat the total area of forest land available for commercial harvest. Provision of recreation sites; protection of wildlife habitat; and preservation of watershed, soil, and water values have reduced timber production capability. As a result, to meet projected timber demands, the Bureau must increase the intensity of its management of the remaining commercial forest land to increase productivity per acre, a manpower-intensive and dollar-intensive activity. At the lower funding levels, volume per sale is increased, resulting in some efficiencies in sale preparation and administration.

This can, however, place smaller timber operators at a competitive disadvantage with larger operators, since smaller sales are of more interest to the smaller operator.

Finally, the ability of the Bureau to respond to the dramatic increase in demand for non-traditional wood products, particularly for fuel, is constrained considerably at the lower funding levels.

Investments

Funding in Thousands (000) of 1980 Dollars

	Requested Appropriation[1]	Existing Authorization[2]		Authorization Analysis			
	FY 1981	FY 1981	1982	FY 1982	1983	1984	1985
Level 1	8,346	10,956	10,956	12,573	13,234	13,603	13,972
Level 2	8,346	10,956	10,956	11,891	12,814	13,366	12,843
Level 3	8,346	10,956	10,956	9,479	9,768	9,875	9,882

Full-Time Permanent Positions

	Existing Ceiling[3]	Existing Authorization[2]		Authorization Analysis			
	FY 1981	FY 1981	1982	FY 1982	1983	1984	1985
Level 1	176	228	228	230	247	257	270
Level 2	176	228	228	206	208	215	225
Level 3	176	228	228	177	187	205	212

[1] Revised President's Budget
[2] BLM Four-Year Authorization for Fiscal Years 1979-1982
[3] Established by the Department of the Interior

Performance

	Level 1	Level 2	Level 3
Service, Operations and Maintenance	307,000 fuelwood permits issued (100 percent of demand). 167,000 Christmas trees sold (100 percent of demand). 526,000 posts and poles sold (100 percent of demand).	154,000 fuelwood permits issued (50 percent of demand). 80,000 Christmas trees sold (50 percent of demand). 262,000 posts and poles sold (50 percent of demand).	151,000 fuelwood permits issued (45 percent of demand). 72,000 Christmas trees sold (45 percent of demand). 151,000 posts and poles sold (45 percent of demand).
Management Planning Analysis[1]	Not Applicable	Not Applicable	Not Applicable
Inventory	3,439,000 acres of public (outside of western Oregon) commercial forestland comprehensively inventoried (100 percent of present inventory need). 1,720,000 acres of non-commercial forestland comprehensively inventoried (100 percent of present inventory need).	3,439,000 acres of public (outside of western Oregon) commercial forestland inventoried (100 percent of present inventory need), but less comprehensively than at Level 1. 1,720,000 acres of non-commercial forestland inventoried (100 percent of present inventory need), but less comprehensively than at Level 1.	2,000,000 acres of public commercial forestland inventoried (60 percent of present inventory need). No inventory of non-commercial forestland.

Planning[1]	Not Applicable	Not Applicable	Not Applicable
Activity Planning	473 activity plans completed (100 percent of needed plans).	350 activity plans completed (75 percent of needed plans).	330 activity plans completed (70 percent of needed plans).
Implementation	1,360 timber sales (100 percent of demand).	1,320 timber sales (97 percent of demand).	1,220 timber sales (90 percent of demand).
	492 million board feet of timber sold (100 percent of allowable harvest).	440 million board feet of timber sold (90 percent of allowable harvest).	440 million board feet of timber sold (90 percent of allowable harvest).
	68,500 acres of forest development (seeding, planting, timber-stand improvement, site improvement) (100 percent of treatment required by harvest proposed at Level 1 plus 100 percent of backlog).	54,360 acres of forest development (100 percent of treatment required by harvest proposed at Level 2 plus 100 percent of backlog).	42,800 acres of forest development (80 percent of treatment required by harvest proposed at Level 3 and none of backlog).

[1] Performance outputs for these elements are multi-resource in nature and are described under "Planning and Inventory Coordination."

Workloads/Outputs

Fuelwood Permits Issued

FY	1981	1982	1983	1984	1985
Level 1	32,000	70,000	75,000	79,000	83,000
Level 2	32,000	35,000	38,000	40,000	41,000
Level 3	32,000	35,000	35,000	40,000	40,000

Christmas Trees Sold

FY	1981	1982	1983	1984	1985
Level 1	18,000	37,000	40,000	42,000	48,000
Level 2	18,000	18,000	20,000	21,000	21,000
Level 3	18,000	18,000	18,000	18,000	18,000

Posts and Poles Sold
in Thousands (000)

FY	1981	1982	1983	1984	1985
Level 1	56	120	135	136	137
Level 2	56	60	66	68	68
Level 3	56	58	66	68	68

Acres Inventoried of Public Commercial Forestland
in Thousands (000)

FY	1981	1982	1983	1984	1985
Level 1	265	441	1,020	1,030	948
Level 2	265	441	1,020	1,030	948
Level 3	265	420	550	500	500

Acres Inventoried of Non-commercial Forestland
in Thousands (000)

FY	1981	1982	1983	1984	1985
Level 1	2,300	2,700	5,000	5,000	5,000
Level 2	2,300	2,700	5,000	5,000	5,000
Level 3	2,300	0	0	0	0

Timber Sold (Public Lands Outside Western Oregon)
in Millions (000,000) of Board Feet

FY	1981	1982	1983	1984	1985
Level 1	110	110	117	132	133
Level 2	110	110	110	110	110
Level 3	110	110	110	110	110

Relationship to Other Programs

Management programs in western Oregon have traditionally been funded out of the Oregon and California (O&C) Grant Lands Appropriation, with a token amount of funding (approximately $1 million) from the Management of Lands and Resources Appropriation (MLR).

The O&C fund (budget authority) is derived from 25 percent of current year receipts from the O&C timber lands of western Oregon. Receipts are generated as timber is cut and removed by timber sale purchasers and O&C budget authority is derived only when these receipts are deposited with the Treasury and a Treasury warrant is issued. Such warrants are normally issued monthly, following the month in which receipts are deposited. O&C funds remain available until expended and unobligated amounts carry forward from one fiscal year to the next.

Projected timber sale receipts for FY 1982-1985 indicate that anticipated budget authority will be inadequate to fund totally the program discussed in the O&C Grant Lands narrative following this section.

The Bureau administers approximately 2.4 million acres of land in western Oregon under the O&C Act of 1937. Approximately ten percent of these lands are public domain and Coos Bay Wagon Road (CBWR) lands. The remainder are revested O&C Grant lands. Because of their intermingled nature, all of the lands are combined into Sustained Yield Units for allowable cut computations and timber management purposes. The O&C "plowback" timber receipts are now used to fund almost all multiple-use management on these western Oregon lands. On a per-acre basis, the $1 million of MLR Appropriations amounts to only a fraction of the actual expenditures on public domain and CBWR lands, or approximately ten percent of the projected O&C budget authority.

Authorization Needed for Public Domain and CBWR Lands in Western Oregon
in Thousands (000) of 1980 Dollars

FY	1982	1983	1984	1985
MLR Account	1,200	1,500	2,100	2,500
ACM Account	7,300	6,500	6,400	6,500
Total	8,500	8,000	8,500	9,000

Since the O&C Act does not provide for administration of the intermingled public domain and CBWR lands, annual funding is more appropriate through the MLR and ACM Appropriations. This would remedy most of the deficiency projected for management and administration of the western Oregon lands under BLM jurisdiction.

Another issue is that, under present O&C accounting procedures, annual budget authority is based upon accrued timber receipts in the current fiscal year. This leads to funding the program on a month-by-month basis and developing planned fiscal-year activities on an estimate of receipts and resulting budget authority. Therefore, in a year such as FY 1980 when receipts are less than anticipated, adjustments must be made during the year as the shortfall becomes apparent. If the Bureau were able to operate on prior-year receipts, it would be possible to know at the beginning of the year what level of program could be funded. To implement this procedure, it will be necessary to obtain a one-time appropriation (preferably in FY 1982) to fund the program while one year's receipts are allowed to accumulate in reserve. This procedure would have no overall budgetary impact so long as the amount appropriated were roughly equivalent to 25 percent of O&C receipts in that year. We estimate that $78 million will be available from O&C receipts in FY 1982 and request that this amount be appropriated to the O&C Appropriation, so that the program can be managed on an efficient and business-like basis.

Oregon and California Grant Lands

The O&C lands contain some of the most highly productive forest lands in the United States. They produce about 1.1 billion board feet of timber annually on a sustained basis. Twenty-five percent of the revenue from timber harvesting on O&C lands is made available to BLM for four principal activities on the revested lands in the 18 O&C counties of western Oregon.

- Construction of timber access roads, other permanent roads, and recreation sites, and acquisition of easements for timber access roads.
- Maintenance of access roads, operation and maintenance of recreation facilities, and maintenance of administrative facilities.
- Management of renewable resources including reforestation, timber stand improvement, sale of timber and other forest products, commercial thinning, forest genetics and protection, management of rangeland, recreation, wildlife, and water quality.
- Preparation and maintenance of planning documents, environmental assessments, and automated data processing elements in support of the management of O&C lands resources.

Receipts from the sale of timber are expected to increase and a larger program for the O&C Lands is projected. The 25 percent of the revenue from timber harvesting is not adequate budget authority for the projected program in FY 1982-1985. Projected budget authority needed for the program is shown in the following table. This level of expenditure will allow BLM to apply fully principles of multiple use and to maintain sustained yield, will help stabilize or reduce the wood products trade deficits, and will minimize inflationary trends.

Total Funding Projections
in Thousands (000) of 1980 Dollars

	FY 1981	1982	1983	1984	1985
Program Requirement	58,200	86,500	87,500	97,600	95,600
25% of Revenue	58,200	78,000	79,500	89,100	94,700
MLR and ACM Accounts	0	8,500	8,000	8,500	9,000

Forest Management
Oregon and California Grant Lands Program[1]

		FY 1981	1982	1983	1984	1985
Forest Management	($000)	33,568	44,686	49,003	47,991	47,687
	Full-Time Positions	(525)	(711)	(721)	(758)	(765)
Range Management	($000)	142	381	424	417	428
	Full-Time Positions	(6)	(9)	(13)	(10)	(10)
Recreation Management	($000)	736	1,153	1,168	1,113	1,184
	Full-Time Positions	(20)	(32)	(31)	(33)	(35)
Soil, Water and Air	($000)	600	737	828	937	1,049
	Full-Time Positions	(19)	(28)	(28)	(29)	(30)
Wildlife Management	($000)	1,622	3,562	3,981	4,611	5,109
	Full-Time Positions	(35)	(51)	(58)	(63)	(78)
Fire Management	($000)	4,525	5,604	5,701	6,227	7,176
	Full-Time Positions	(18)	(27)	(27)	(28)	(28)
Planning and Inventory	($000)	566	550	287	323	357
	Full-Time Positions	(18)	(25)	(11)	(13)	(14)
Data Management	($000)	304	178	187	196	203
	Full-Time Positions	(2)	(3)	(3)	(3)	(3)
Land Acquisition	($000)	858	1,457	1,283	848	899
	Full-Time Positions	(18)	(26)	(22)	(21)	(21)
Construction and Maintenance	($000)	15,279	28,157	26,595	34,852	31,445
	Full-Time Positions	(173)	(238)	(255)	(268)	(263)
Totals	($000)	58,200	86,465	87,457	97,515	95,537
	Full-Time Positions	(834)	(1,150)	(1,169)	(1,226)	(1,247)

---

[1] These funds are not included in the Four-Year Authorization request.

Forest Management
Oregon and California Grant Lands

	FY 1981	1982	1983	1984	1985
Workloads					
Millions of board feet Regular sales	1,100	1,100	1,100	1,100	1,100
Number of other sales and permits	3,800	4,000	4,200	4,400	4,400
Outputs					
Value of timber sold, regular sales in millions of dollars	330	360	385	385	385
Value of other forest products in dollars	25,000	35,000	45,000	50,000	60,000
Number of acres 100% protected	240,000	240,000	240,000	240,000	240,000
Acres of sites protected	7,000	8,000	8,500	9,000	9,000
Acres of timber stand improvement	48,400	60,000	65,000	71,000	71,000

Recreation and Environmental Areas

Recreation and Environmental Areas

BLM has the responsibility, under the multiple-use mandate, of assuring that the non-commodity resources of the public lands are available for the benefit of the general public and future generations. Various legislation, including the Federal Land Policy and Management Act and the National Environmental Policy Act, as well as Executive Orders underlie that responsibility and require analyses of the impacts of land use decisions on actual and potential recreational and environmental areas. To comply with these mandates, BLM has established five programs responsible for identifying and protecting these public resources. The programs include: Recreation Management, Visual Resource Management, Cultural Resource Management, Natural History Resource Management, and Wilderness.

RECREATION MANAGEMENT

The primary objectives of BLM's recreation program are to manage and protect public land resources that are used for recreational activities such as off-road vehicle (ORV) sports, river rafting, hiking, camping, hunting, and fishing, and to aid visitor enjoyment and safety by informing the public about the values and uses of the public lands.

Public recognition of the recreational values of the public lands has grown rapidly in recent years. The Classification and Multiple Use Act of 1964 recognized that major portions of public lands in the western States and Alaska possessed values that should be managed for multiple uses, including recreation, and provided ways to designate and segregate lands primarily for recreational use. This Congressional mandate was reinforced and expanded when the Federal Land Policy and Management Act was enacted in 1976.

The recreational use of public lands has also grown rapidly. Increased leisure time, awareness of public land values, increased mobility, and other factors pushed the number of annual visitors to public lands from 12 million in 1964 to 80 million in 1979.

Many recreational resources—rivers, trails, roadless areas—have national as well as local significance. As part of its multiple-use planning process, BLM conducts studies to evaluate the significance of such areas to ensure that they are effectively managed and, in some instances, to provide information for designating them as part of the national system of wild and scenic rivers or scenic and historical trails.

While virtually all of the public lands managed by BLM are open to recreational use, areas with specially recognized recreational values include:

- 30 special recreation areas totaling 3.1 million acres;
- the California Desert Conservation Area, with 12 million acres;
- 45 recreational and whitewater rivers with 2,500 miles suitable for recreation use. Four rivers—the Rio Grande, Rogue, Missouri, and American—are designated as National Wild and Scenic Rivers and 16 more are being considered for inclusion in the system;
- 216 miles of designated National Recreation Trails; and over 5,000 additional miles of trails crossing public lands under study;
- 250 developed recreation sites with 4,000 units for camping and 250 primitive campgrounds; and
- King Range National Conservation Area with over 41,000 acres and 30 miles of Pacific beach.

BLM issues special recreational permits for all commercial or competitive recreational uses, for any organized event that involves 50 or more motorized vehicles, and for special areas where use must be controlled as part of prudent land management.

A major recreational activity on the public lands is the use of off-road vehicles (ORV's)—motorcycles, minibikes, trail bikes, snowmobiles, dune buggies, all-terrain vehicles, and others. The widespread use of such vehicles began in the late 1960's. While the Bureau recognizes ORV's as an acceptable recreational activity, they are frequently in conflict with other types of recreational activity and other values (environmental, historic, cultural, etc.). In response to this growing problem, President Nixon issued Executive Order 11644 on February 8, 1972, to "establish policies and provide for procedures that will be controlled and directed so as to protect the resources of those lands, to promote the safety of all users of those lands, and to minimize conflicts among the various uses of those lands."

In 1973, under its existing recreation management regulations (43 CFR 6000, January 18, 1969), BLM designated 12 million acres of the California Desert as either open, limited, or closed to ORV use in an effort to begin controlling ORV activity. On May 15, 1974, regulations (43 CFR 6290) implementing Executive Order 11644 became effective. In November 1974, the National Wildlife Federation contested these regulations (*National Wildlife Federation* v. *Morton, et al.*) saying that they failed to conform with requirements of the Executive Order. The court ruled in favor of National Wildlife Federal in May 1975 by finding that the Secretary had failed to set a date for completing designations of all public lands as required by the order and had paraphrased rather than quoted criteria set in the order for such designations. The court also required a revision of the Departmental Environmental Impact Statement on ORV use on all Federal lands.

The Department of the Interior completed the EIS on April 21, 1978, and issued revised ORV regulations (43 CFR 8340) on July 16, 1979, incorporating specific provisions of the court order, Executive Order 11644 (as amended by Executive Order 11989), and the EIS. President Carter issued EO 11989 on May 24, 1977, to clarify BLM's authority by directing that areas be closed immediately when ORV use would cause considerable adverse effects on the soil, vegetation, wildlife habitat, or cultural or historic resources of the areas.

The Bureau also manages several officially designated wild and scenic rivers. The Wild and Scenic Rivers Act of 1968 designated 44 miles of the Rio Grande River in New Mexico and 47 miles of the Rogue River in Oregon as national wild and scenic rivers. In addition the Bureau manages wild and scenic segments of the Missouri River in Montana and the American River in California. About 350,000 people visited these four rivers, which total about 250 miles. in fiscal year 1979.

In addition, under authority provided in the National Trails System Act of 1968, BLM is studying and developing a resource management plan for the Pacific Crest National Scenic Trail in Oregon and California. The trail segments for which BLM has authority total 174 miles—42 in southern Oregon and 132 in southern California. Thirty-nine miles of the trail have been completed in Oregon and 59 in California.

Current Status

To date, the BLM has designated approximately 14.5 million acres of land as either open, limited, or closed to ORV use, including 12 million acres in the California Desert. In fiscal 1980, an additional 12 million acres of land are scheduled for ORV designation decisions. BLM is developing a comprehensive public education program to explain these designations to the public and promote safe and prudent ORV use through public service announcements on radio and television, brochures, and personal contact in the field. A major goal of this effort is the development of a more responsible "land ethic" in ORV users. BLM is developing a similar public education program to explain safety and protection restrictions on the use of wild and scenic river areas on the public lands.

The fiscal 1981 base program includes managing the recreational use of stretches of 60 rivers, including the congressionally designated Rio Grande, Upper Missouri, Rogue, and American rivers. An estimated 1,500 permits will be issued and their use supervised. In cooperation with the National Park Service and the Forest Service, recreation management plans will be initiated for 12 rivers during FY 1981.

Finally, BLM participated in developing management plans for the Continental Divide (Montana, Idaho, Wyoming, Colorado, and New Mexico); Iditarod (Alaska); Lewis and Clark (Montana, Idaho, and Oregon); Oregon (Wyoming, Idaho, and Oregon); and Mormon-Pioneer (Wyoming) national trails.

Issues

Most of the public lands managed by BLM are uniquely suited for undeveloped and unstructured recreation and, as such, represent a significant national recreation resource. The availability of these lands for recreation is important to the daily lives of many people who live in the West, and the recreational use of these lands contributes to the economic well-being of many western communities.

While recreational activities have been long recognized as a legitimate use of public lands and resources, traditionally the Bureau has provided the public with a very limited range of recreational services. As the recreational use of public lands expands, it is becoming increasingly clear that both the nature and the scope of these services will have to change. Public comments received during the consultation process associated with this report repeatedly pointed to the need for new recreational opportunities.

The public wants clearer information on where the recreation opportunities on public lands are, how they can get access to them, and what kind of services are available when they get there. In contrast to the extraordinary increase in recreational demand on the public lands, the Bureau has few recreational facilities in place and only minimal visitor services. In many of even the most heavily used areas, BLM has no on-the-ground personnel to ensure visitor safety and to protect public land resources from misuse. Vandalism of what few facilities the Bureau does maintain is a growing problem, and conflicts among competing recreational interests and between recreational and non-recreational resource uses are becoming more pronounced.

As a result of these changes and in order to develop recreation policies that will meet the challenges of the 1980's, a committee was established in fiscal 1979 to review the Bureau's existing recreation policies. This committee is composed of representatives from a number of Federal land management agencies, individuals from the university community, State officials, and private citizens. Recommendations for policy revision will be submitted to the Director of BLM in late FY 1980.

As the Bureau's recreation management policies change, appropriate action will be taken to coordinate the Bureau's recreation program with the recreation management activities of the National Park Service, the Forest Service, the Heritage Conservation and Recreation Service, and other Federal agencies. Where feasible, the Bureau's recreation activities will also be coordinated with State, local, and private entities to prevent needless duplication of recreation facilities as well as to ensure that all legitimate forms of recreation are recognized.

Goals

The Bureau's major goals for the recreation program include:

- Providing the public with information concerning public lands and resources and the recreational opportunities on public lands;
- Reducing safety hazards and ensuring proper resource use by providing the public with information, facilities, and on-site visitor assistance;
- Establishing permit systems for some recreational activities to protect recreational and other resource values; and
- Compiling basic recreation resource inventory and use data necessary to meet land use planning requirements and for the special studies associated with river, trail, and other special area designation.

In pursuing these goals, the Bureau will continue to assess user fees when such fees are cost-effective and consistent with the policies and practices of other Federal resource management agencies that provide the public with recreation opportunities and services.

Alternative Investment and Performance Levels

As recreation inventories are completed, the Bureau's recreation program will become increasingly involved in the planning and implementation components of the Bureau's management system. Activity plans will be developed to manage designated special areas, to identify specific visitor service needs, and to establish recreation permit systems. If these management tools are going to be effectively implemented and equitably applied, funding and staffing levels for the program's service, operations and maintenance activities in particular will have to increase, in some cases substantially.

Investments

Funding in Thousands (000) of 1980 Dollars

	Requested Appropriation[1]	Existing Authorization[2]		Authorization Analysis			
	FY 1981	FY 1981	1982	FY 1982	1983	1984	1985
Level 1	6,504	14,442	20,169	13,823	17,215	20,737	23,490
Level 2	6,504	14,442	20,169	10,505	11,684	13,021	13,700
Level 3	6,504	14,442	20,169	8,115	9,447	10,796	12,171

Full-Time Permanent Positions

	Existing Ceiling[3]	Existing Authorization[2]		Authorization Analysis			
	FY 1981	FY 1981	1982	FY 1982	1983	1984	1985
Level 1	95	223	223	217	279	303	329
Level 2	95	223	223	167	197	214	218
Level 3	95	223	223	141	160	165	172

[1] Revised President's Budget
[2] BLM Four-Year Authorization for Fiscal Years 1979-1982
[3] Established by the Department of the Interior

At Levels 1 and 2, an additional 135 million acres of public land managed by BLM will be designated for open, limited, or closed ORV use by the end of fiscal year 1985. At Level 3, an additional three to four years will be required to designate this number of acres. The accomplishment of other Recreation program goals will be delayed by 10 to 15 years at Level 2 and 20 to 30 years at Level 3, when compared with Level 1.

Performance

	Level 1	Level 2	Level 3
Service, Operations and Maintenance	Maps, brochures, and other informational services will be provided for a wide variety of recreational opportunities.	Maps, brochures, and other informational services will be provided for a selected number of recreational opportunities.	Maps, brochures, and other informational services will be provided for ORV recreation opportunities only.
	On-site assistance and interpretive services will be provided in many high-use areas.	On-site assistance and interpretive services will be available in a limited number of highest-use areas.	On-site assistance will be provided for organized ORV activities only.
	By 1985 approximately 8,000 permits, licenses, and leases will be issued annually; monitoring will occur on a regular basis to check for unauthorized use and for permit compliance.	By 1985 approximately 6,000 permits, licenses, and leases will be issued annually; limited spot monitoring for unauthozized use and permit compliance will occur.	By 1985 approximately 4,000 permits, licenses, and leases will be issued annually; monitoring for unauthorized use and compliance will occur only when complaints are received.
	Cooperative agreements and arrangements will be extensively employed to acquire easements for access and for joint provision of visitor services.	Cooperative agreements and arrangements will be employed in a selected number of high-use areas.	Cooperative agreements and arrangements will be employed in specially designated recreation areas.
	A recreation use monitoring program will be established in 30 high-use areas by 1985; Bureau will coordinate its long-term recreation planning activities with those of State, local, and tribal units of government.	Recreation use monitoring will be limited to a few high-use areas; recreation planning coordination will occur in a selected number of areas.	No detailed recreation use monitoring will occur; coordination of recreation planning will occur in a selected number of areas.
Management Planning Analysis[1]	Not Applicable	Not Applicable	Not Applicable
Inventory	Inventories will be completed in accordance with the established planning schedule; field examination and trend analyses will be performed for all high-use areas.	Inventories will be completed in accordance with the established planning schedule; field examinations will be performed for all high-use areas and trend analyses will be performed for a selected number of areas.	Inventories will be completed in accordance with the established planning schedule; field examinations and trend analyses will be performed in only a few limited areas.
Planning[1]	Not Applicable	Not Applicable	Not Applicable
Activity Planning	Management plans will be completed or updated for 385 high-use recreation areas.	Management plans will be completed or updated for approximately 240 high-use recreation areas.	Management plans will be completed for a few high-use areas.

Implementation	Permit systems will be implemented where appropriate.	Permit systems will be implemented in a selected number of areas.	Very few new permit systems will be implemented.
	Approximately 250 special areas will be designated by 1985.	Approximately 100 special areas will be designated by 1985.	Very few new special areas will be designated.

[1] Performance outputs for these elements are multi-resource in nature and are described under "Planning and Inventory Coordination."

Relationship to Other Programs

The following Bureau programs provide support for the Recreation Management program within their funding base.

- Cadastral Survey: Identifying the boundaries for special areas.
- Construction and Maintenance: Developing and maintaining visitor facilities such as boat ramps, trail-head facilities, etc.
- Automated Data Processing: Data storage, analysis, retrieval, and dissemination.
- Planning: Coordinating recreation planning schedules with other resource programs.
- Public Affairs: Developing media releases regarding the recreation program and printing of documents.
- Cooperative Relations: Identifying public participation methods to be used in the development of recreation management plans.
- Lands: Transferring recreational lands to other jurisdictions and processing land use authorizations.
- Fire Management: Developing fire management.
- Resources Protection: Law enforcement.
- Rights-of-Way: Acquiring rights-of-way.

The Recreation program relies on the Regional Offices of the Solicitor of the Department of the Interior to represent the Bureau in legal challenges regarding ORV designations and in tort claims brought against the Bureau for injuries recreational users incur on public lands. The Recreation Program also coordinates its activities with the Heritage Conservation and Recreation Service, the National Park Service, and the Forest Service.

VISUAL RESOURCE MANAGEMENT

The Federal Land Policy and Management Act, the National Environmental Policy Act, and a number of other Statutes and Executive Orders require the Bureau of Land Management to assess the visual impacts of proposed activities on public lands and to adopt measures to minimize the adverse visual impacts of these activities. The Bureau's Visual Resource Management program is responsible for ensuring that this aspect of the agency's multiple-use management mandate is met. This includes, among other things, inventorying the visual resources on public lands, developing appropriate design standards and visual impact simulation techniques, assessing the visual impacts associated with specific resource developments and other changes in the use of public land, designing measures to minimize the adverse visual impacts of proposed actions, and developing measures to enhance particularly scenic areas.

Current Status

Visual resource inventories are completed for approximately 15 percent of the lands administered by the BLM. Inventories of the remaining 85 percent are expected to be completed by 1990. As these inventories are conducted, those areas having unique visual values will be considered for possible special area designation and special management status.

A variety of techniques have been developed by the Bureau, the Forest Service, and other Federal land management agencies to simulate the visual impacts of proposed changes in the use of public lands, and a training program has been developed to familiarize field personnel with these techniques. The Bureau provides State and local units of government with information concerning visual resource management and coordinates its visual resource management activities with those of other units of government.

Issues

The visual impact of public land development activities—such as mining, energy production and transportation, facility construction, and timber cutting —is an issue of growing concern in the West, both to visitors and to residents of adjacent communities. The Bureau, as the agency responsible for assessing the impacts of these frequently urgent projects, needs to build accurate data on visual resource values on the public lands and incorporate it into its planning process to ensure that they are adequately considered when siting and development decisions are made. The potential visual impacts associated with the siting and operation of the proposed Allen-Warner Valley power project in the Southwest is an example of this concern.

Goals

It is BLM's goal to minimize the adverse impacts associated with the development of public resources and changes in the use of public lands.

Alternative Investment and Performance Levels

While the Visual Resource Management program does prepare a limited number of activity plans to enhance the visual resources in particularly scenic areas, the primary emphasis of the program is to perform services for the Bureau's other resource programs. Such support services include assessing the visual impacts of proposed resource development activities, developing measures to minimize the visual impact of proposed developments, and training field personnel to use available visual impact assessment techniques.

Investments

Funding in Thousands (000) of 1980 Dollars

	Requested Appropriation[1]	Existing Authorization[2]		Authorization Analysis			
FY	1981	1981	1982	1982	1983	1984	1985
Level 1	356	498	1,120	637	781	830	781
Level 2	356	498	1,120	615	754	775	843
Level 3	356	498	1,120	510	620	630	650

Full-Time Permanent Positions

	Existing Ceiling[3]	Existing Authorization[2]		Authorization Analysis			
FY	1981	1981	1982	1982	1983	1984	1985
Level 1	30	7	14	47	54	56	60
Level 2	30	7	14	43	50	50	54
Level 3	30	7	14	34	40	42	43

[1] Revised President's Budget
[2] BLM Four-Year Authorization for Fiscal Years 1979-1982
[3] Established by the Department of the Interior

Performance

	Level 1	Level 2	Level 3
Service, Operations and Maintenance	Program personnel will be placed in all State and District Offices and in a selected number of Area Offices. Visual resource impact assessments will be prepared for all major resource development actions including the siting of energy facilities, mining operations, timber harvesting, and road construction. Simulations will be prepared for such activities and mitigating measures will be developed. Program activities will be coordinated with those of other Federal land management agencies and State and local units of government.	Program personnel will be placed in all State Offices and in a selected number of District and Area Offices. Visual resource impact assessments will be prepared for 90 percent of all major energy-related developments. 75 percent of all major timber and mining activities, and 60 percent of all major road construction activities. Simulations will be prepared for many of these proposed actions. Program activities will be coordinated with other Federal land management agencies and a limited number of State and local entities.	Program personnel will be placed in all State Offices and a limited number of District Offices. Visual resource impact assessments will be prepared for approximately 40 percent of the major resource development actions in the Bureau. A limited number of simulations will be prepared in conjunction with these assessments. Program activities will be primarily coordinated with other Federal land management agencies.
Management Planning Analysis[1]	Not Applicable	Not Applicable	Not Applicable

Inventory	Inventories will be completed in accordance with the planning schedule. Field assessments will be performed as necessary.	Inventories will be completed in accordance with the planning schedule. Selective field assessments will be conducted.	Inventories will be completed in accordance with the planning schedule. Field examinations will occur in a few key areas.
Planning[1]	Not Applicable	Not Applicable	Not Applicable
Activity Planning	Activity plans will be prepared for all scenic areas that require rehabilitation. EIS's will be prepared when necessary.	Activity plans will be prepared for approximately 60 percent of the scenic areas identified as requiring rehabilitation. EIS's will be prepared when necessary.	Activity plans will be prepared for approximately 20 percent of the scenic areas identified as requiring rehabilitation. EIS's will be prepared when necessary.
Implementation	Not Applicable	Not Applicable	Not Applicable

[1] Performance outputs for these elements are multi-resource in nature and are discussed under "Planning and Inventory Coordination."

Relationship to Other Programs

The Visual Resource Management program performs support services for the Bureau's energy, forestry, range, lands and realty, and construction programs. The effective management of the visual resources on public lands is also an important aspect of the Bureau's recreation programs.

CULTURAL RESOURCE MANAGEMENT

With full management responsibility for more than half of the Federal land base and an additional 370 million acres of Federal mineral estate underlying non-Federal surface, the Bureau has a more extensive responsibility for managing and protecting cultural resources than any other land management agency in the Nation. Estimates of the number of specific cultural resource sites on BLM-administered lands range from one-half million to over five million. These sites represent a wide variety of cultural resources including 20,000-year-old Native American hunting camps, prehistoric southwestern ruins, early wagon roads and trails, historic mining towns, abandoned light houses along the Great Lakes, and areas of contemporary religious and social significance to many Native Americans.

The cultural resource management program is responsible for evaluating and identifying cultural resource sites on public lands, nominating sites for the National Register of Historic Places, authorizing research and clearance activities, and developing measures to protect these cultural resources from vandalism, natural destruction, or inadvertent damage resulting from changes in land use. In those areas where resource development necessitates the destruction of a cultural resource site, this program is also responsible for ensuring that the site is evaluated and, if necessary, excavated or salvaged.

More than 110 cultural resource properties located on public lands are presently listed in the National Register of Historic Places. Approximately 80 additional National Register nominations for cultural resource properties on public lands are pending or in preparation. More than 500 other cultural resource sites on the public lands have been identified as possessing qualities making them suitable for nomination to the National Register. This number is increasing at a rate of 200 to 500 properties per year.

Current Status

In the lower 48 States, Cultural Resource Overviews—a compilation and synthesis review of the existing cultural resource literature—have been completed or are underway for approximately one-third of the lands administered by the BLM. Limited field surveys have been completed, at varying sampling levels, on about one-sixth of the BLM-administered lands, and detailed field surveys have been completed for approximately two million acres. To facilitate this inventory work, the Bureau and the Forest Service have joined in a reciprocal effort to inventory resources that are on adjoining BLM and Forest Service lands.

The Cultural Resource Management program is establishing a public affairs and public participation program called "PAST" (Protect America's Silent Treasures), an effort to increase public awareness of the value of the cultural resources on public lands and of the need to protect these resources from theft, vandalism, and destruction. Through this program the Bureau can provide educational and informational services to the communities located near significant cultural resource sites and enlist their cooperation in protecting these resources.

In 1979, the BLM implemented procedures to classify all cultural resource sites on public lands by categories of use: socio-cultural use, current or potential scientific use, and conservation for future use.

BLM has also taken steps to ensure the protection of numerous fragile cultural sites threatened by vandalism or natural destruction. In 1979, for example, the Bureau carried out 10 salvage projects, eight structural stabilization projects, seven fencing and signing projects, and more than 15 patrol and surveillance efforts covering more than 30 critical areas. Together, these projects provided some degree of protection for over 500 specific cultural resource sites.

Issues

A significant number of the cultural resource sites occur in areas where there are other important resource values. As a consequence, the preservation of cultural resources often conflicts with other land uses such as mining and energy-related developments. While many of these conflicts can be effectively resolved on a case by case basis through BLM's established multiple-use planning procedures, the Bureau's ability to address some of these conflicts is hampered by the absence of adequate cultural resource inventory data. The absence of such data often makes it difficult to assess the relative importance of a particular cultural resource site and to determine what steps, if any, should be taken to protect it.

Theft, natural destruction, and vandalism are a continuing threat to the preservation of a vast number of valuable nonrenewable cultural resources on BLM-administered public lands. The recently passed Archeological Resources Protection Act of 1979, coupled with FLPMA, provides the needed enforcement authority—but not the support—to curtail these destructive activities. Because many cultural artifacts have significant commercial value, the problem of theft is a major one and will require an adequately funded law enforcement and public education effort to assure protection.

Goals

The goals of the Cultural Resource Management program are to:

- Identify and preserve representative samples of the full array of cultural resources on public lands for the benefit of scientific and educational institutions, and present and future generations of Americans;

- Ensure that cultural resources are given full consideration in all land-use planning and management decisions;
- Manage cultural resources so that scientific and socio-cultural values are not diminished, but rather maintained and enhanced; and
- Ensure that the Bureau's undertakings avoid inadvertent damage to cultural resources, both Federal and non-Federal.

Alternative Investment and Performance Levels

While the Cultural Resource Management program's primary functions are to protect the cultural resources on public lands and to facilitate the enjoyment and study of these resources by the general public and by members of the scientific and educational communities, it also performs a number of support functions for other Bureau programs. Cultural resource inventories must be completed before use authorization permits can be issued for mining, transmission line rights-of-way, roads, and other land use changes. Similarly, salvage operations and impact mitigation measures must be initiated before many resource development activities can proceed. The Cultural Resource Management program's ability to perform these service functions in a timely manner over the next five to ten years will depend in large part on the speed with which necessary inventory work is completed.

Investments

Funding in Thousands (000) of 1980 Dollars

	Requested Appropriation[1]	Existing Authorization[2]		Authorization Analysis			
	FY 1981	FY 1981	1982	FY 1982	1983	1984	1985
Level 1	3,448[4]	2,116[4]	3,362	12,300	15,650	15,250	13,550
Level 2	3,448[4]	2,116[4]	3,362	7,855	8,645	9,385	9,930
Level 3	3,448[4]	2,116[4]	3,362	4,522	6,370	6,960	7,930

Full-Time Permanent Positions

	Existing Ceiling[3]	Existing Authorization[2]		Authorization Analysis			
	FY 1981	FY 1981	1982	FY 1982	1983	1984	1985
Level 1	55	32[5]	42	83	85	105	108
Level 2	55	32[5]	42	67	71	86	89
Level 3	55	32[5]	42	57	65	67	78

[1] Revised President's Budget

[2] BLM Four-Year Authorization for Fiscal Years 1979-1982

[3] Established by the Department of the Interior

[4] Authorization for Cultural Resource Management reallocated within MLR Account to cover additional responsibilities under recent statutes.

[5] Non-Statutory—Reallocated by the Department of the Interior to meet additional responsibilities.

Performance

	Level 1	Level 2	Level 3
Service, Operations and Maintenance	By 1985, 240 antiquities permits will be issued annually. Compliance monitoring will occur on a regular basis.	By 1985, 240 antiquities permits will be issued annually. Compliance monitoring will occur on a regular basis for a selected number of sites.	By 1985, 240 antiquities permits will be issued annually. Compliance monitoring will be irregular.
	4 million acres will be regularly monitored for vandalism and natural damage by 1985.	1.7 million acres will be selectively monitored for vandalism and natural damage by 1985.	1.5 million acres will be selectively monitored for vandalism and natural damage by 1985.
	Regular maintenance of protection facilities will be accomplished at 88 sites by 1985.	Regular maintenance of protection facilities will be accomplished at 48 sites by 1985.	Regular maintenance of protection facilities will be accomplished at 48 sites by 1985.
	Brochures and public service announcements will be prepared to inform the public about the cultural resources on public lands and about the legal consequences of vandalism.	Brochures will be prepared to inform the public about the cultural resources on public lands and about the legal consequences of vandalism.	Limited public information services will be provided.
Management Planning Analysis[1]	Not Applicable	Not Applicable	Not Applicable
Inventory	Cultural resource overview studies will be completed for all public lands. Field examinations will be performed in all high-use areas and will be coordinated with other agencies.	Cultural resource overview studies will be completed for all public lands. Field examinations will be selectively performed in high-use areas and interagency coordination will occur where feasible.	Cultural resource overview studies will be completed for 95 percent of the public lands. Field examinations will be performed on an irregular basis. Interagency coordination will be limited.
Planning[1]	Not Applicable	Not Applicable	Not Applicable
Activity Planning	Activity plans will be prepared for 300 significant cultural resource properties.	Activity plans will be prepared for approximately 200 cultural resource properties that are threatened with destruction.	Activity plans will be prepared for approximately 100 threatened cultural resource properties.
Implementation	Approximately 500 properties will be nominated for inclusion in the National Register of Historic Places.	Approximately 220 properties will be nominated for inclusion in the National Register of Historic Places.	Approximately 90 properties will be nominated for inclusion in the National Register of Historic Places.
	Facilities will be constructed as required to protect significant cultural sites.	Facilities will be constructed to protect those sites that are threatened with destruction.	Facilities will be constructed to protect a selected number of sites threatened with destruction.

[1] Performance outputs for these elements are multi-resource in nature and are discussed under "Planning and Inventory Coordination."

The Cultural Resource Management program is faced with a significant casework backlog. Cultural resource properties already identified as being suitable for the National Register of Historic Places have not been nominated and activity plans have not been prepared or implemented to protect many sites threatened by vandalism and natural destruction. At Level 1 this casework backlog will be reduced significantly over the next five years. It will take approximately twice as long to reduce the current backlog at Level 2. The backlog will not be significantly affected at Level 3.

Workloads/Outputs

Acres Monitored
in Thousands (000)

FY	1981	1982	1983	1984	1985
Level 1	1,000	2,500	3,000	3,500	4,000
Level 2	1,000	1,200	1,380	1,500	1,700
Level 3	1,000	1,200	1,300	1,400	1,500

Acres Intensively Inventoried
in Thousands (000)

FY	1981	1982	1983	1984	1985
Level 1	4,400	21,000	32,200	28,400	25,000
Level 2	4,400	14,500	15,900	16,100	17,300
Level 3	4,400	5,200	10,900	11,600	13,800

National Register Nominations

FY	1981	1982	1983	1984	1985
Level 1	10	100	120	130	140
Level 2	10	40	45	50	70
Level 3	10	11	15	20	25

New Protection Facilities (Sites Protected)

FY	1981	1982	1983	1984	1985
Level 1	168	336	468	516	588
Level 2	168	240	288	344	456
Level 3	168	204	264	312	360

Relationship to Other Programs

Legislative mandates require that all BLM resource programs undertake or have undertaken certain cultural resource inventory, evaluation, compliance, and mitigation work for any of their actions that might affect cultural resources. Procedures developed by the cultural resource program are used by other BLM resource programs to do this work. All BLM programs, as benefiting activities, are responsible for funding: (1) cultural resource inventories and evaluations needed to ensure compliance, beyond the data provided by the Cultural Resource Management program through the Bureau planning system; (2) compliance documentation for section 106 of the National Historic Preservation Act of 1966; and (3) cultural resource protection work needed to mitigate effects of resource development projects on cultural resources.

The Cultural Resource Management program's resource protection activities require support from both the Regional Offices of the Solicitor of the Department of the Interior and BLM's resource protection program.

NATURAL HISTORY RESOURCE MANAGEMENT

The Federal Land Policy and Management Act of 1976 (FLPMA) explicitly mandates the Bureau to protect the quality of scientific, ecological, and environmental values, and to preserve and protect certain public lands in their natural condition. FLPMA also requires the Bureau to develop regulations and plans for protecting areas of critical environmental concern where special management attention is required to prevent irreparable damage to important natural systems or processes. While all of the Bureau's primary resource programs are required to consider these resource values in formulating and implementing resource development and management plans, the Natural History Resource Management (NHRM) program was created specifically to provide guidance on how to achieve these Congressional goals and to enhance the Bureau's contribution to the Federal Committee on Ecological Reserves, the Federal Research Natural Area System, and the Department of the Interior's National Natural Landmarks Program.

The natural history program is responsible for identifying natural areas on public lands having significant scientific and educational values, developing measures to protect these areas, and facilitating use of these areas by scientists, educators, and others interested in environmental science. To ensure the development of a comprehensive national system of natural areas and to eliminate duplication of effort, the natural history program works closely with other Federal agencies, State and local units of government, and private entities to identify the types of natural areas to be included in the national system; to determine which types of areas are already protected; and to concentrate on closing the gaps in the system.

As part of this effort to coordinate natural area activities, the BLM is participating in several major natural area preservation projects. One, "Man and the Biosphere," is sponsored by the United Nations Educational, Scientific, and Cultural Organization. Its objective is to develop an international network of protected areas that are representative of the earth's biologic regions. Another is the 18-member Federal Committee on Ecological Reserves. Officially established in 1974 under the leadership of the National Science Foundation and the Council on Environmental Quality, the purpose of this committee is to promote the development of a comprehensive network of natural reserves for environmental science research and education.

Additional efforts are also being pursued to coordinate the Bureau's natural history function with the Marine and Estuarine Sanctuaries Programs of the Office of Coastal Zone Management, the National Natural Landmarks Program of the Heritage Conservation and Recreation Service, and the Rare and Endangered Species Program.

Current Status

At present, the Bureau has designated 20 Research Natural Areas on 48,755 acres. There are also 85 National Natural Landmarks proposed or designated on lands administered by the BLM, totaling about 3 million acres.

The Bureau has also designated over 40 other natural areas (including Outstanding Natural Areas and Primitive Areas) consisting of about 820,000 acres, and an additional 3 million acres of natural areas potentially meriting protection have been identified.

In response to the President's 1979 Environmental Message, a BLM task force was established to review the procedures that are currently employed within the Bureau to identify, designate, and protect nationally significant natural areas, as well as other special areas.

Issues

The full number and extent of natural areas meriting protective management are not yet known, nor can they be systematically inventoried at present staffing and funding levels. Many of the known significant natural areas under BLM jurisdiction are not yet designated for protective management and, as a consequence, are receiving less than adequate protection. Partly as a result of the lack of trained personnel for use-supervision and monitoring, insufficient funding for regular maintenance, and low program priority, 50 cf the Bureau's recognized natural history resource areas, including 10 designated National Natural Landmarks, are known to be in declining condition or are threatened with imminent damage. It is likely that many others are in the same condition, but due to the lack of available personnel, the Bureau is unable to survey and monitor them thoroughly. These concerns are being considered by the Special Areas Task Force and will be addressed in the recommendations the task force prepares concerning the management of nationally significant areas.

Goals

The goals of the Bureau's Natural History Management program are to protect the integrity of significant natural systems and to facilitate the use of such areas by scientists, educators, and interested individuals.

Alternative Investment and Performance Levels

During the next five years the major priority for the Natural History Resource Management program will be to improve the management of established natural areas. This will entail issuing use permits to scientific and educational organizations, monitoring established natural areas for permit compliance and unauthorized use, and implementing measures to prevent damage to these natural areas.

Investments

Funding in Thousands (000) of 1980 Dollars

	Requested Appropriation[1]	Existing Authorization[2]		Authorization Analysis			
	FY 1981	FY 1981	1982	FY 1982	1983	1984	1985
Level 1	232	374	872	1,830	3,010	5,590	9,080
Level 2	232	374	872	1,225	1,845	3,375	5,350
Level 3	232	374	872	1,120	1,450	2,250	3,200

Full-Time Permanent Positions

	Existing Ceiling[3]	Existing Authorization[2]		Authorization Analysis			
	FY 1981	FY 1981	1982	FY 1982	1983	1984	1985
Level 1	2	4	9	10	20	40	75
Level 2	2	4	9	8	15	24	46
Level 3	2	4	9	2	3	5	10

[1] Revised President's Budget
[2] BLM Four-Year Authorization for Fiscal Years 1979-1982
[3] Established by the Department of the Interior

At Level 3, the Natural History Resource Management program will be able to perform basic management functions for a limited number of the Bureau's established natural areas, and the risk of damage to these areas will continue. By FY 1985, for example, surveillance activities will be close to 75 percent lower than at the higher funding levels. Furthermore, at Level 3, less then half of the known significant natural areas on public lands administered by the BLM will be designated for special management consideration by 1985.

Performance

	Level 1	Level 2	Level 3
Service, Operations and Maintenance	Approximately 80 special-use permit applications will be processed annually by 1985. Pre-issuance field examinations will be conducted in all high-use areas and compliance monitoring will occur on a regular basis.	Approximately 60 special-use permit applications will be processed annually by 1985. Pre-issuance field examinations and compliance monitoring will be conducted in a selected number of high-use areas.	Approximately 30 special-use permit applications will be processed annually by 1985. Pre-issuance field examinations and compliance monitoring will rarely be conducted.
	By 1985, approximately 400 natural areas will be regularly monitored for unauthorized use and damage. In a number of high-use areas, on-site visitor assistance will be available during periods of high use.	By 1985, approximately 200 natural areas will be regularly monitored for unauthorized use and damage. On-site visitor assistance will rarely be available.	By 1985, approximately 100 natural areas will be regularly monitored for unauthorized use and damage. No on-site visitor assistance will be available.
	Resource protection facilities will be regularly maintained in approximately 90 natural areas by 1985.	Resource protection facilities will be regularly maintained in approximately 40 natural areas by 1985.	Funding is insufficient to provide regular facility maintenance in any natural areas.
Management Planning Analysis[1]	Not Applicable	Not Applicable	Not Applicable
Inventory	Gaps in available inventories will be filled in accordance with the planning schedule and will be coordinated with other land management agencies. Remote sensing techniques and field examinations will be employed where appropriate.	Gaps in available inventories will be filled in accordance with the planning schedule and will be coordinated with other land management agencies where feasible. Remote sensing techniques and field examinations will be selectively employed.	Gaps in available inventories will be filled in accordance with the planning schedules primarily through the use of literature surveys. Field examinations and remote sensing techniques will rarely be employed.
Planning[1]	Not Applicable	Not Applicable	Not Applicable
Activity Planning	Activity plans will be completed for 68 natural areas by 1985.	Activity plans will be completed for approximately 35 natural areas by 1985.	Activity plans will be completed for approximately 25 natural areas by 1985.

Implementation	By 1985, management facilities such as cattleguards, animal passes, access control gates, observation blinds, and instrument platforms will be constructed in 85 natural areas.	By 1985, additional management facilities will be constructed in 43 natural areas.	No additional management facilities will be constructed.
	By 1985, approximately 250 natural area special designations will be prepared and acted upon.	By 1985, approximately 135 natural area special designations will be prepared and acted upon.	By 1985, approximately 100 natural area special designations will be prepared and acted upon.

---

[1] Performance outputs for these elements are multi-resource in nature and are described under "Planning and Inventory Coordination."

Workloads/Outputs

Use Permits Issued

FY	1981	1982	1983	1984	1985
Level 1	0	5	12	32	76
Level 2	0	5	12	30	55
Level 3	0	5	8	18	30

Areas Monitored

FY	1981	1982	1983	1984	1985
Level 1	15	35	115	236	380
Level 2	15	25	75	120	200
Level 3	15	20	50	75	100

Areas Regularly Maintained

FY	1981	1982	1983	1984	1985
Level 1	0	5	15	35	85
Level 2	0	3	8	18	43
Level 3	0	0	0	0	0

Areas Inventoried

FY	1981	1982	1983	1984	1985
Level 1	0	74	54	59	65
Level 2	0	74	54	59	65
Level 3	0	74	54	59	65

Special Area Designations

FY	1981	1982	1983	1984	1985
Level 1	10	35	55	85	65
Level 2	10	20	30	35	40
Level 3	10	20	25	25	25

Relationship to Other Programs

The Natural History Resource Management program relies on support actions funded by a number of other BLM programs and offices. These include:

- Technical advice from Resource Sciences;
- Inventories from Geology, Range, Forestry, Recreation, Wilderness, and Wildlife;
- Inventory evaluation, natural area selection, and other RMP functions from Planning;
- Natural area selection and designation, and preparation and implementation of wildlife and wilderness management plans from Wildlife and Wilderness;
- Lands action from Lands and Realty;
- ADP and remote sensing support from Data Management;
- Permit compliance checks for non-NHRM uses on natural areas from all benefiting resource programs; and
- Natural area boundary surveys from Cadastral Survey.

WILDERNESS

The Federal Land Policy and Management Act of 1976 made wilderness a part of the multiple-use mandate for public lands and required the Bureau to conduct a comprehensive review of the wilderness characteristics of the public lands it administers and to manage designated wilderness areas accordingly once Congress acts on the Bureau's recommendations.

An initial inventory of the wilderness characteristics of 174 million acres of the public lands in the contiguous western States has been completed and 123 million acres of public lands that obviously lack wilderness characteristics have been exempted from any further wilderness review. The remaining acreage is being more intensely inventoried to determine whether it possesses the specific wilderness characteristics defined in the Wilderness Act of 1964.

Areas found to have wilderness characteristics—called wilderness study areas—will be evaluated in detail to determine their potential uses and whether they are suitable for preservation as wilderness. The lands identified as suitable for wilderness will be surveyed for mineral values by the U.S. Geological Survey and the Bureau of Mines. Based on the detailed studies, the Secretary of the Interior will submit recommendations on each wilderness study area to the President. The President, in turn, is required to send his recommendations to Congress within two years after receiving reports from the Secretary. Only Congress can designate an area as wilderness to be included in the National Wilderness Preservation System.

The wilderness review applies to all public lands administered by BLM except:

- Lands where the United States owns the minerals but the surface is not federally owned;
- Lands being held for the benefit of Indians, Aleuts, or Eskimos;

- Lands tentatively approved for State selection in Alaska;
- Lands on the Outer Continental Shelf; and
- Oregon and California grant lands that are managed for commercial timber production.

In addition to the overall wilderness review, FLPMA directs the Secretary of the Interior to make recommendations to the President by July 1, 1980, on 55 areas (about 507,000 acres) formally identified in 1975 or before as natural or primitive areas. BLM is currently reviewing these areas, scattered throughout the western States and Alaska, in order to make recommendations to Congress on their suitability for possible inclusion in the National Wilderness Preservation System.

FLPMA states that during the review the lands must be managed "in a manner so as not to impair the suitability of such areas for preservation as wilderness." A special exception to this mandate covers mineral and grazing uses, which may continue under a "grandfather" provision in the same manner as they were on the date FLPMA was enacted. BLM is also mandated to prevent unnecessary or undue degradation of the lands.

FLPMA further states that any public lands designated as wilderness by Congress will be managed under provisions of the Wilderness Act of 1964.

Current Status

Of the estimated 174 million acres of public lands subject to the wilderness inventory, over 123 million acres have been determined to lack wilderness characteristics; slightly less than 41 million acres are under intensive inventory; and about 10 million acres have been designated as wilderness study areas. Decisions concerning the 41 million acres currently under intensive inventory will be made by October 31, 1980.

To relieve some of the impacts of the review process on ongoing projects—especially energy-related ones—certain inventories are being accelerated. A good example is the potentially valuable oil and gas region in the Overthrust Belt, a twisting geological formation which stretches from the northern Rocky Mountains through Montana, Wyoming, Idaho, Utah, Nevada, and Arizona. The accelerated review has resulted thus far in the release of nearly 10 million acres of public lands in the Overthrust Belt, while the remaining 1.4 million acres have been designated as wilderness study areas.

On December 12, 1979, BLM issued *Interim Management Policy and Guidelines,* a guide for managing lands under wilderness review to maintain their suitability for possible wilderness designation, while recognizing valid existing rights and "grandfathered" mineral and grazing uses. New post-FLPMA uses will be carried out in accordance with the guide.

Considerable progress was made in the preparation of reports on the formally designated primitive or natural areas on which the Secretary must report to the President by July 1, 1980. The first recommendation from that group of 55 areas came from the Arizona State Office, which recommended wilderness status for Aravaipa Canyon Primitive Area. The Bureau also determined that final recommendations will be provided on 30 of the 55 areas by the July 1, 1980, deadline. Recommendations on the other 25 areas will be deferred for a variety of reasons, most of which involve wilderness inventories or studies on lands adjacent to the designated primitive or natural areas. The 25 areas will be reported over the next several years with a recommendation either to include or to exclude them from the national wilderness system or to combine them with other study units.

Issues

Few programs in the Bureau are more controversial, particularly among agricultural, mineral, and energy development interests, than the wilderness review. While the public debate tends to focus on whether there is too much or too little wilderness, the Bureau's task is not discretionary—Congress mandated the review on the basis of characteristics, not acreage. The Bureau designed the mandatory review process to release swiftly lands that do not possess wilderness characteristics in order to reduce uncertainty about their use for other purposes.

As soon as the intensive inventory is completed, a Bureauwide schedule for wilderness studies will be developed, with public participation. Areas with the most important resource conflicts will be scheduled for an early study, and depending on the availability of staff and funding BLM will attempt to complete all studies well before the 1991 deadline set by FLPMA. A report on the studies will be made periodically to Congress.

Another issue is the question of the wilderness review in Alaska, which has not started because the Department's fiscal year 1979 appropriation bill barred the use of funds for such a review. This issue is currently under discussion in Congress in connection with the Alaska National Interest Lands Conservation Act.

Goals

The goals of the Bureau Wilderness program are to:

- Review all roadless areas of the public lands in the contiguous United States having wilderness characteristics and submit recommendations to the President by October 30, 1987, concerning the suitability or nonsuitability of each area for preservation as wilderness.
- Complete the wilderness review process for areas involving significant resource use conflicts, such as those involving nationally significant resources or projects, or grazing, and make recommendations on these areas to the President no later than 1984;
- Report as soon as possible to the President recommendations concerning the 55 previously identified primitive and natural areas;
- Ensure that decisions under the Interim Management Policy are made promptly so as not to cause unnecessary delay in processing land use applications;
- Apply the Interim Management Policy effectively to maintain wilderness suitability and to allow the continuation of grandfathered uses and the exercise of valid existing rights;
- Manage areas designated as wilderness by Congress to ensure the maintenance of wilderness characteristics and values consistent with the Wilderness Act of 1964. A cooperative management program will be maintained with other Federal and State agencies as appropriate; and

- Ensure meaningful public involvement throughout all aspects of the wilderness review process.

Alternative Investment and Performance Levels

Given the importance of monitoring for compliance with the Interim Wilderness Management Policy and of reviewing the wilderness characteristics of public lands, funding Levels 1 and 2 are identical for these two activities. By placing a high priority on these two activities, the Bureau intends to protect those areas that may be included in the National Wilderness Preservation System and to reduce uncertainties concerning the ultimate use of these public lands. At funding Level 3, less inventory work will be done and potential wilderness areas will be only selectively monitored for compliance with the Interim Management Policy.

The degree to which the Bureau will be able to accelerate the wilderness review process to further shorten the period of uncertainty in those areas involving significant resource use conflicts depends in large part on the availability of funding and staff. At funding Levels 1 and 2, wilderness review will be expedited for all high-conflict areas. At funding Level 3, these reviews will only be accelerated in a selected number of high-conflict areas.

Investments

Funding in Thousands (000) of 1980 Dollars

	Requested Appropriation[1]	Existing Authorization[2]		Authorization Analysis[4]			
	FY 1981	**FY 1981**	**1982**	**FY 1982**	**1983**	**1984**	**1985**
Level 1	10,574	11,828	11,828	16,390	18,100	17,650	18,950
Level 2	10,574	11,828	11,828	14,657	16,150	16,000	16,900
Level 3	10,574	11,828	11,828	12,370	13,641	11,728	12,511

Full-Time Permanent Positions

	Existing Ceiling[3]	Existing Authorization[2]		Authorization Analysis			
	FY 1981	**FY 1981**	**1982**	**FY 1982**	**1983**	**1984**	**1985**
Level 1	117	196	196	160	174	172	222
Level 2	117	196	196	126	140	136	181
Level 3	117	196	196	120	125	106	112

[1] Revised President's Budget

[2] BLM Four-Year Authorization for Fiscal Years 1979-1982

[3] Established by the Department of the Interior

[4] At Levels 1 and 2, approximately eight million dollars per year of additional funding is allocated to BLM's Planning and On-site Minerals program in fiscal years 1982-1985 for wilderness-related planning amendments and mineral surveys. As these funds are included in the authorization analyses for these two programs, they are not reflected in the authorization analysis for this program. If the wilderness review for the contiguous United States is going to be completed by the end of fiscal year 1987, however, sufficient funding must be appropriated for these other programs to cover these wilderness-review-related activities.

	Performance		
	Level 1	**Level 2**	**Level 3**
Service, Operations and Maintenance	Approximately 50,000 to 60,000 acres per year will be monitored regularly for compliance with the interim management policy.	Approximately 50,000 to 60,000 acres per year will be regularly monitored for compliance with the interim management policy.	Potential wilderness areas will be selectively monitored for compliance with the interim management policy.
	Procedural guidelines for managing designated wilderness areas will be prepared, and cooperative agreements with other agencies will be arranged. As wilderness areas are designated, BLM will be ready to manage them effectively.	Procedural guidelines for managing designated wilderness areas will be prepared, and cooperative agreements with other agencies will be arranged. As wilderness areas are designated, the Bureau will be ready to manage them effectively.	Procedural and policy guidelines will not be prepared until wilderness areas are designated. Cooperative agreements with other agencies will be arranged in a selected number of areas.
	Designated wilderness areas will be regularly monitored for unauthorized use.	Designated wilderness areas will be regularly monitored for unauthorized use.	Designated wilderness areas will be selectively monitored for unauthorized use.
	Visitor-use facilities in designated wilderness areas will be regularly maintained.	Visitor-use facilities in designated wilderness areas will be regularly maintained.	Preventive maintenance of visitor-use facilities will be limited.
Management Planning Analysis[1]	Not Applicable	Not Applicable	Not Applicable
Inventory	From FY 82 to FY 85 all of the public lands and islands in the eastern United States and some of the public lands in Alaska will be inventoried for their wilderness characteristics. Mineral surveys will be completed on approximately 11 million acres.	From FY 82 to FY 85 all of the public lands and islands in the eastern United States and some of the public lands in Alaska will be inventoried for their wilderness characteristics. Mineral surveys will be completed on approximately 11 million acres.	From FY 82 to FY 85 all of the public lands and islands in the eastern United States will be inventoried for their wilderness characteristics. Mineral surveys will be completed on approximately 7 million acres.
Planning[1]	Not Applicable	Not Applicable	Not Applicable
Activity Planning	Wilderness studies and associated EIS's will be expedited for all high-conflict areas. Remaining areas will be studied in accordance with an accelerated wilderness study schedule. By 1985, wilderness studies will be completed for approximately 23 million acres.	Wilderness studies and associated EIS's will be expedited for all high-conflict areas. Remaining areas will be studied in accordance with an accelerated wilderness study schedule. By 1985, wilderness studies will be completed for approximately 15 million acres.	Wilderness studies and associated EIS's will be expedited in a limited number of high-conflict areas. Remaining areas will be studied in accordance with the planning schedule.
	Activity plans for managing designated areas will be prepared for all designated wilderness areas.	Activity plans for managing designated areas will be prepared for all designated high-use wilderness areas.	Activity plans for managing designated areas will be prepared for a selected number of designated high-use wilderness areas.

Implementation	Activity plans will be implemented within two to four years for an estimated 70 wilderness areas.	Activity plans will be implemented within four to six years for an estimated 46 wilderness areas.	Activity plans will be implemented within six to eight years for an estimated 17 wilderness areas.

[1] Performance outputs for these elements are multi-resource in nature and are described under "Planning and Inventory Coordination."

The Bureau's ability to prepare expeditiously wilderness area recommendations and to manage effectively Congressionally designated wilderness areas is also dependent on the availability of funding and staff. At Level 1, for example, all of the wilderness area recommendations for public lands located in the contiguous United States will be submitted to the President by the end of fiscal 1987. At Level 3, the President will not receive some of the wilderness area recommendations for these lands until 1991. The sooner these recommendations can be prepared and submitted to the Congress, the sooner existing uncertainties concerning the ultimate use and management of these public lands can be resolved.

Relationship to Other Programs

Various other programs and offices provide support to the Wilderness program. These programs and the items of support include:

- Cadastral Survey: Identification of boundaries when necessary;
- Construction: Development of visitor facilities such as trails, trail-head facilities, etc.;
- Automated Data Processing: Computerized tracking of the wilderness review process, standardized mailing list for inputs to new policy, etc.;
- Planning: Coordination of study policies and schedules with other programs, such as Range EIS's, and incorporation of wilderness studies into the Bureau's planning system through Resource Management Plans (RMP's) or MFP amendments;
- Mineral Resources: Coordination of survey policy and schedules with the Geological Survey and Bureau of Mines on mineral surveys, and development and application of an intensive BLM minerals inventory as part of the planning process for all wilderness study areas;
- Legislation and Regulatory: Development of legislative proposals for wilderness recommendations;
- Public Affairs: Development of media releases regarding the Wilderness program and printing of documents;
- Cooperative Relations: Development of public participation methods to be used in the wilderness review process;
- Lands: Withdrawals, acquisitions, etc.;
- Fire Management: Development of fire management plans;
- Resources Protection: Law enforcement; and

- Rights-of-Way: Process rights-of-way applications.

The Wilderness program also relies on the Geological Survey and the Bureau of Mines to conduct mineral surveys of public lands identified as suitable for possible wilderness area designation.

Lands and Realty Management

MANAGING PUBLIC REAL ESTATE

FLPMA's most sweeping effect was the consolidation and clarification of the objectives and procedures by which the remaining unreserved public lands under BLM jurisdiction would be managed. The public lands had been used throughout the 19th century as incentive stock to spur the development of the West. The General Land Office, BLM's predecessor, had as its primary purpose the disposal of the public domain lands. Demand for the lands dwindled by the turn of the 20th century, as what appeared to be the choicest parcels were transferred to State and private ownership or reserved for specific Federal purposes. Such declining demand and changing Federal needs modified the concept of disposal of public lands through a series of evolutionary developments during the last 80 years. The Mineral Leasing Act of 1920, the Taylor Grazing Act, the Classification and Multiple Use Act, the report of the Public Land Law Review Commission, and other events—notably the increasing realization of the national value of the remaining public lands—led to the formal articulation of Federal land management policy in FLPMA. That policy stated that the public lands would, with some exceptions, remain in Federal stewardship and be managed for the benefit of all Americans under the principles of planned multiple-use management and sustained yield production.

The Bureau is, in effect, the real estate agent for all public land transactions—providing a program of public services through land sales, exchanges, leasing, use classifications and authorizations, and provision of rights-of-way. The Bureau also seeks to improve public service and management on the public lands through maintaining land status records, and withdrawing lands from some uses to protect other resources or uses of such lands.

LANDS AND RIGHTS-OF-WAY

While FLPMA establishes retention as the general policy, it also provides for disposal of land, through a variety of mechanisms, where there is a demonstrated public need or purpose to be served and where the disposal action is clearly in the national interest and generally consistent with BLM's plan for the area. FLPMA clarified BLM's responsibilities with respect to land sales, exchanges, leases, land acquisition, and the granting of lands and rights-of-way for a variety of purposes. It also called for a sweeping review by a specific deadline (1991) of the public lands which had been withdrawn from general use prior to 1976. FLPMA also revised totally the process and procedures by which future withdrawal actions may be made.

Since FLPMA was passed, BLM's Lands and Rights-of-Way program has been focused largely on four areas of activity: (1) developing the rules by which BLM must implement the sale, lease, exchange, withdrawal, and rights-of-way provisions of the Act; (2) responding to dramatically increasing energy-related land transaction applications; (3) conducting an inventory of withdrawn lands prior to a review of which lands can be returned to multiple use; and (4) processing State and Native land selections under the Alaska Statehood Act and the Alaska Native Claims Settlement Act.

In addition to these four major activities and conducting day to day operations, other current program objectives include: (1) improving services to States, local governments, and users by simplifying and expediting procedures for processing proposals and applications for realty actions; (2) reducing casework backlogs and processing delays; (3) protecting public resources, investments, and income and facilitating public enjoyment of the lands by substantially reducing unlawful and unauthorized uses, and theft and destruction of resources; (4) supporting preparation of land use plans and environmental assessments with the realty data base; and (5) improving the manageability of land patterns for Federal and State land managers and adjacent private owners.

Current Status

The Bureau of Land Management has issued several regulations as final rules specifying the procedures by which the Bureau handles:

- Oil and gas pipelines and related facilities,
- Conveyance of Federally owned mineral rights interest, and
- Liberalized conveyances to State and local governments under the Recreation and Public Purposes Act.

Additionally, BLM has prepared a number of regulations which are currently in public review and comment, or are at the stage for issuance as proposed rulemaking. Among these are:

- Rights-of-way regulations for all types of use under FLPMA—regulations scheduled to be issued as final rules in July 1980;
- Land withdrawal regulations providing for new procedures for Federal agencies to obtain land withdrawals—final regulations anticipated to be issued in July 1980;
- Proposed regulations on exchanges of public lands planned to be issued in June 1980;

- Proposed regulations providing for the sale of public lands issued in October 1979, scheduled for issuance as final rules in June 1980;

- Proposed regulations authorizing the issuance of permits, leases, and easements scheduled for issuance in June 1980;

- Proposed regulations authorizing issuance of disclaimers of interest to remove clouds on titles and procedure to correct errors in patents scheduled for issuance in July 1980; and

- Proposed regulations governing the designation and withdrawal of lands determined to be unsuitable for mining of minerals other than coal under the provisions of the Surface Mining Control and Reclamation Act of 1977, scheduled to be issued in June 1980.

Where public needs have warranted, the Bureau has authorized field officials to make use authorizations or disposals on a case-by-case basis even though final regulations have not been issued.

Since the passage of FLPMA, BLM has held nearly 17 land sales and sold almost 1700 acres for various purposes. Efforts have been made to assure close cooperation with affected cities and counties on each sale so that the pace of public land sales is consistent with the jurisdictions' planned development goals.

The Bureau has also completed 72 land exchanges in the three and one-half years since FLPMA was enacted, using interim guidelines pending completion of procedural regulations. These land exchanges involved 85,000 acres of non-Federal and public lands. As the exchange program expands it is likely that value equalization monies will be needed. FLPMA allows up to a 25 percent cash payment to equalize land value in a land exchange.

A substantial proportion of Lands and Rights-of-Way program effort in recent years has been devoted to processing siting and rights-of-way proposals. This is especially true for proposals associated with the dramatic increase in domestic energy development and facility construction in the West. The majority of such development in recent years has been on public lands managed by BLM. As of the end of the 1979 calendar year, BLM was processing applications and either conducting or participating in environmental analyses of:

- Ten major pipeline projects, from the 195-mile Colony Oil Shale Pipeline to the 4,000-mile Alaska Natural Gas Pipeline;

- Eight major powerplant siting proposals, from a 500 megawatt project in Nevada to the 3,000 megawatt Intermountain Power Plant in Utah;

- 15 major transmission line proposals, from a 40-mile line from Ojo to Taos, New Mexico, to an 850-mile line through Utah, Nevada, and California; as well as

- A variety of railroad, highway, water system, and tunnel projects.

BLM anticipates a significant increase in the demand for energy-related land actions during the period covered by the Four-Year Authorization. To provide a visible focal point for facility siting projects of exceptionally high national importance, BLM created in fiscal year 1979 an Office of Special Projects in Washington and a companion Special Projects Environmental Assessment

Team in Denver. The new office is responsible for tracking the development of selected projects, monitoring and expediting siting and environmental analysis, and serving as the broker between the project developer and the Department of the Interior, other Federal agencies, State and local governments, and various interest groups. Projects currently managed by the Office of Special Projects include the West-to-East Crude Oil System, the ETSI (Energy Transportation Systems Inc.) Coal Slurry Pipeline, the Alaska Natural Gas Transportation System, BLM support of the siting EIS for the MX Missile System, and the Bisti powerplant complex in New Mexico. Based on recent experience with the Northern Tier Pipeline Route, it is anticipated that the Office of Special Projects will speed up significantly the Federal permitting process while maintaining an adequate management handle on major projects.

Pursuant to Section 204 of FLPMA which requires a comprehensive 15-year review of past withdrawals of public lands, BLM completed in fiscal year 1979 an inventory of existing withdrawals to be reviewed. The inventory report identifies some 67.9 million acres of land to be covered by the review. Because of the special interest in the potentially petroleum-rich Overthrust Belt area in Idaho, Wyoming, Montana, and Utah, BLM has scheduled accelerated review in this area to be completed by the end of fiscal 1980. BLM intends to complete the withdrawal review on the rest of the public lands by the 1991 deadline.

Currently, 25 percent of BLM's Lands and Rights-of-Way program work force is involved in processing Native and State selections in Alaska under the Alaska Native Claims Settlement Act and the Alaska Statehood Act. As of the close of fiscal 1979, BLM conveyed 10.6 million acres of a total of some 44 million acres due the Alaska Native villages and Native Regional Corporations and 37 million acres of a total 104 million acres due the State. The current objective is to convey approximately 6.6 million acres annually under Native Claims and between 13 and 14 million acres annually to the State of Alaska.

Issues

Legislation enacted at the turn of the century provided that States would be granted lands in lieu of lands they did not obtain under quantity grants when such lands were not available or were preempted by other valid claims. This law, called the Indemnity Selection Act, has not resulted in many land transfers in recent years because of litigation entered by the State of Utah over the discretionary authority of the Secretary of the Interior, under Section 7 of the Taylor Grazing Act, to classify lands as to their suitability for such transfers.

The District Court's decision that the Secretary does not have such discretionary authority was affirmed by the Tenth Circuit Court of Appeals on August 8, 1978. The decision was reversed by the Supreme Court in May 1980. The Supreme Court decision is expected to increase State selections under the Indemnity Act and the associated workload within the period of this authorization. There is a total of roughly 500,000 acres of entitlements remaining to be selected.

Among the laws authorizing entry on the public lands for agricultural purposes which were not repealed by FLPMA are the Desert Land Act, The Carey Act, and the Homestead Act, which is still in force until 1986 in Alaska but was repealed by FLPMA for the Lower 48 States. Because of the large acreages being transferred to the State and Native villages or corporations, or set aside for Federal programs in Alaska, an active Homestead program there is not anticipated.

Activity under the Desert Land Act statute is occurring principally in the States of Nevada and Idaho. At the State's request, Nevada was opened to the filing of agricultural entry applications in January 1979. Some 3,397 applications covering some one million acres have been filed since that date, creating a backlog of applications. Unfortunately, a recent agricultural study of public lands in Nevada estimated that there are only about 50,000 acres in the State suitable for such development.

The Desert Land Act application situation in Idaho is similar. Roughly 1,400 applications are on file. A recently issued draft Environmental Statement on the impact of agricultural development of an area in south central Idaho disclosed that great increases in irrigation-related power development and costs will result from opening such areas to agricultural development.

The 1894 Carey Act allows the Secretary to transfer certain lands to the States in which such lands are located, for further transfer to private individuals in up to 160-acre tracts for agricultural development. As with the Desert Land Act, the limiting factor is water availability for new farming activities. The recent Supreme Court decision in *Andrus et al.* v. *Idaho* (79-260, April 16, 1980) established the discretionary nature of the Secretary's authority to approve grants under the Carey Act. The Department of the Interior is currently completing regulations to implement this authority.

In an effort to respond to high-priority energy and energy-related land action needs in recent years, the Bureau has had to shift personnel and funding away from a variety of non-energy land action requests. As a result, backlogged cases—including permits, exchanges, and withdrawal restorations—are increasing. The elimination of such backlogs was a high-priority public concern during the public consultation period for the Four-Year Authorization. While BLM is developing streamlined procedures to reduce processing delays, it is clear that funding and staff support are necessary to reduce the backlogs. With such support, the Bureau estimates that the most significant delays and backlogs could be eliminated in five to 10 years. Reduction of backlogs and other problems which create delays in processing land actions were of particular concern to a number of States in the consultation period as well as in their comments on the draft.

Another issue of public concern is the checkerboard land pattern in many parts of the West where BLM and other Federally owned lands are interspersed with private land. Consistent with funding and work-force constraints, BLM will undertake an aggressive land exchange and land boundary adjustment program with non-Federal land owners and will jointly initiate a boundary adjustment/administrative management program with the Forest Service to correct this pattern where required for management efficiency. Through these programs BLM will make management area boundary changes to improve the effectiveness and efficiency of public land management and facilitate public use of such lands.

BLM will play a key supporting role in the MX missile project, should the government continue to pursue its deployment. The Air Force plans to site the MX missile system on public lands in both Nevada and Utah. It is the Bureau's responsibility to have a concern for the public resources of the lands involved and for the people who depend on those resources. The Bureau has met regularly with the Air Force since the close of the fiscal year to outline the analytic requirements of FLPMA and NEPA and is assisting the Air Force in preparing the EIS. The Air Force plans to release a draft EIS in June 1980. The Bureau has an interest in ensuring that the needs of existing users of the land are considered and that the potential impacts of the project are analyzed before siting decisions are made.

If or when the MX project is initiated, BLM's role will also be to ensure rapid completion of the withdrawals required; to cooperate with the Air Force, the States, and affected local governments to develop and implement mitigating measures to minimize environmental, social, and economic impacts resulting from the project; and to provide planning assistance and services (public purpose land grants, land sales, etc.) for affected communities. The programs considered in this analysis do not include funding for these activities. The costs of BLM support for an MX system and the communities it will affect will have to be separately considered pending the system approval and location.

The Bureau will play a similar supporting role in the issue of siting nuclear waste repositories on the public lands. The President's National Program on Radioactive Waste Management of February 12, 1980, outlines a Federal-State-local community cooperative effort on this controversial issue and recommends that a comprehensive examination and characterization of alternative sites and alternative disposal media be undertaken before making final decisions about the disposal of either Defense or commercial nuclear wastes.

The Bureau concurs with this approach and with the Administration's guiding principle that the States should be full participants in any siting decisions. As with MX, BLM's responsibility is to ensure that the impacts of such a proposal on the resources and communities and individuals involved are professionally and carefully analyzed before the decision to complete land transfers is made and to assist in implementation of any necessary mitigating measures after a decision.

Another similar issue is emerging with regard to the disposal of toxic and hazardous wastes other than nuclear wastes. Since the emergence of the Love Canal situation in Buffalo, New York, and similar cases in Tennessee, California, and elsewhere around the Nation, pressure has been building from citizens and industries to find locations for disposal of such wastes which will be environmentally safe, inexpensive, and sufficiently large to allow continued production in essential industries. Recent discussions indicate that the public lands are being seriously considered in such proposals. Due to the potential for hazards and preclusion of existing uses from affected lands, the Bureau will work closely with the States should such proposals occur. BLM is currently assessing the potential for such proposals and the problems anticipated to be associated with any such action.

Finally, it should be noted that many Lands and Rights-of-Way activities depend on support from the Solicitor's Offices at one or more points in the work flow. In BLM field offices, the need for support in actions before the Board of Land Appeals or the Courts and in completing realty actions is crucial. Adequate funding and staffing of Regional Solicitor's Offices should be given a high priority to reduce or avoid backlogs in land programs.

Goals

The major goals for the Lands and Rights-of-Way program during the period covered by the Four-Year Authorization are to:

- Make public lands available expeditiously for disposal, use, and development as authorized under FLPMA and other statutory authorities, with priority provided to energy development proposals;
- Reduce casework processing time by developing methods and procedures for streamlining decision-making techniques;
- Reduce casework backlogs on a scheduled basis;
- Facilitate energy development and transmission by identifying and designating needed rights-of-way corridors in the 11 western States in a cooperative effort with the Forest Service, the States, local governments, utility and other industries, and interest groups;
- Eliminate or reduce conflicts in legal mandates and streamline regulations and regulatory processes;
- Assist in implementing the Administration's Small Community and Rural Development Policy by working more cooperatively and expeditiously with States and communities on land sales, recreation and public purpose actions, and exchanges; and
- Provide support for other BLM programs through analysis of land use proposals, use authorizations, and land tenure adjustments.

Alternative Investment and Performance Levels

The Lands and Rights-of-Way program, even more than most of BLM, provides a service—an on-demand response—and is, therefore, subject to the variations of the marketplace for the level, mix, and specific location of most of its workload. But to be responsive to both increasing public service demands and statutory mandates will require a substantially augmented level of funding and staffing.

It may be seen from the accompanying tables that, for several outputs, the central variables accounting for the difference in the number of output cases must be the time required for completion, the quality of the work, and the potential for error. Such factors can lead to increases in public loss of confidence, greater potential for successful litigation, slippage in schedules, or delays in land management projects or resource protection.

It can be seen in the Investments table that Lands and Rights-of-Way actions are personnel intensive. What is not evident is the substantial amount of training and experience required of such personnel. BLM will soon be investigating alternative means of handling some of the demand through contracting and other measures.

Investments

Funding in Thousands (000) of 1980 Dollars

	Requested Appropriation[1]	Existing Authorization[2]		Authorization Analysis			
	FY 1981	FY 1981	1982	FY 1982	1983	1984	1985
Level 1	32,504	48,555	50,671	42,429	45,149	46,945	49,053
Level 2	32,504	48,555	50,671	42,117	44,807	46,881	48,874
Level 3	32,504	48,555	50,671	38,283	40,730	43,649	45,603

Full-Time Permanent Positions

	Existing Ceiling[3]	Existing Authorization[2]		Authorization Analysis			
	FY 1981	FY 1981	1982	FY 1982	1983	1984	1985
Level 1	865	1,238	1,298	1,076	1,160	1,209	1,254
Level 2	865	1,238	1,298	1,066	1,150	1,205	1,248
Level 3	865	1,238	1,298	953	1,027	1,104	1,142

[1] Revised President's Budget
[2] BLM Four-Year Authorization for Fiscal Years 1979-1982
[3] Established by the Department of the Interior

The table illustrates the Bureau's commitment at each alternative level to meeting statutory and judicial schedules and Presidential and Secretarial priorities. Emphasis in the FY 1982-1985 program for the Lands and Rights-of-Way subactivities is on:

- Expediting conveyances of Federal lands in Alaska;
- Completing review of pre-FLPMA withdrawals;
- Recording mining claims with a minimum of delay;
- Facilitating energy development and transmission;
- Reducing service backlogs and improving BLM services to individuals, firms, and governments through reduced processing time; and
- Improving Bureau capabilities for management by rationalizing ownership patterns and access.

Many of the service-related efforts will be unified and focused through the President's Small Community and Rural Development Policy and the Bureau's own *Service Action Plan.*

As the performance table indicates, the variations between the alternative funding levels tend to be small. This is because of the number of mandatory, scheduled actions which must be met at any viable level. The difference among the output levels is generally concentrated in acres of inventories completed, activity plans completed, the timing of activity plan completions, or the initiation of new program efforts. The lower the funding level, the longer actions are deferred. Deferral of inventories and activity plans in particular will delay a number of land actions (e.g., use authorizations, exchanges, and tenure adjustments) which support other subactivities and programs of the BLM, particularly energy and minerals, recreation, range management, and planning. Such complex dependencies can make deferrals quite costly in the long run.

Performance

	Level 1	Level 2	Level 3
Service, Operations and Maintenance	Will provide for processing:	Will provide for processing:	Will provide for processing:
	16,350 energy rights-of-way with an average processing time of 120 days (100 percent of demand);	16,350 energy rights-of-way with an average processing time of 120 days (100 percent of demand);	16,350 energy rights-of-way with an average processing time of 210 days or more (100 percent of demand);
	12.5 million acres of ANCSA conveyances or, cumulatively, 92 percent of the total to be conveyed;	12.5 million acres of ANCSA conveyances or, cumulatively, 92 percent of the total to be conveyed;	12.5 million acres of ANCSA conveyances or, cumulatively, 92 percent of the total to be conveyed;
	43.4 million acres of State of Alaska conveyances or 93 percent of the total to be conveyed;	43.4 million acres of State of Alaska conveyances (93 percent of total);	43.4 million acres of State of Alaska conveyances (93 percent of total);
	24,900 non-energy cases, e.g., sales, exchanges, rights-of-way, leases, permits, etc. (current backlog of approximately 12,000 cases reduced by 75 percent by 1985);	24,900 non-energy cases (current backlog reduced to scheduled basis by 1988);	23,500 non-energy cases (current backlog reduced to scheduled basis by 1990);
	2,900 trespass cases (preparation for an intensive abatement program completed by 1985);	2,700 trespass cases (preparation for an intensive abatement program completed by 1986);	2,200 trespass cases (preparation for an intensive abatement program completed by 1988);
	700 pending or planned withdrawals or 100 percent of estimated demand;	700 pending or planned withdrawals or 100 percent of estimated demand;	700 pending or planned withdrawals or 100 percent of estimated demand;
	2,700 withdrawal reviews, or 33 percent of total;	2,700 withdrawal reviews, or 33 percent of total;	2,700 withdrawal reviews, or 33 percent of total;
	1,500 mining claims recorded;	1,500 mining claims recorded;	1,500 mining claims recorded;
	300,000 claims filed, or 100 percent of estimated demand.	300,000 claims filed, or 100 percent of estimated demand.	300,000 claims filed, or 100 percent of estimated demand.
	Full review of requirements for an Alaska Native Allotment Program will be completed in 1982.	All other activities will be handled on an as-available basis.	All other activities will be handled on an as-available basis.
Management Planning Analysis[1]	Not Applicable	Not Applicable	Not Applicable

Inventory	92 million resource inventories conducted on 340 activity plan areas. Trespass inventories completed by 1985.	92 million resource inventories conducted on 340 activity plan areas. Trespass inventories completed by 1985.	40 million resource inventories conducted on 140 activity plan areas. Trespass inventories completed by 1986.
Planning	Forest Service/BLM agreement and other exchanges to make ownership pattern more manageable 60 percent completed.	Forest Service/BLM boundary adjustments 60 percent completed.	Forest Service/BLM boundary adjustments completed on an as-available basis.
Activity Planning	340 Area Activity Plans completed. Initiation of Rights-of-Way Corridor Program.	320 Area Activity Plans completed. Initiation of Rights-of-Way Corridor Program.	180 Area Activity Plans completed. Other activities on an as-available basis.
Implementation[1]	Not Applicable	Not Applicable	Not Applicable

[1] Performance outputs for these elements are multi-resource in nature and are described under "Planning and Inventory Coordination" and other subactivities.

Relationship to Other Programs

Undoubtedly the most important relationships of the Lands and Rights-of-Way program are to the technical support programs. Lands and Rights-of-Way is heavily dependent on technical support to meet its schedules and needs, especially on the Cadastral Survey for land records surveys and transactions, the Law Enforcement program for trespass control, Data Management for increased efficiency of case handling, and Acquisition for implementation of some actions. Without adequate technical support from these programs, estimated output levels will not be achieved in the Lands and Rights-of-Way program, potentially delaying ANCSA conveyances, exchanges, energy rights-of-way, and related transactions.

Additionally, to issue authorizations and to make land tenure adjustments the Lands and Rights-of-Way program requires the support of other subactivities. Some of the programs where mutual support is required in the development of necessary lands documents are: Cultural Resource Management, Minerals, Visual Resource Management, Forest Management, Wildlife Habitat Management, and Range Management. Without support of the other subactivities the issuance of authorizations and tenure adjustments will be delayed. Further, the Lands and Rights-of-Way program gives direct support to the Energy, Minerals, and Recreation programs of the Bureau in the review of withdrawals. A withdrawal review resulting in a change of status can quickly make lands available for mineral leasing and/or recreational purposes. Indirectly, the Lands and Rights-of-Way program gives support to all activities through the planning process and environmental procedures.

Other program relationships include the acquisition program discussed below and the U.S. Department of Agriculture/U.S. Department of the Interior coordination program to resolve boundary issues and improve the manageability of the Public Lands and the National Forest System called for by President Carter in his Second Environmental Message.

LAND ACQUISITION

Prior to passage of FLPMA, BLM's authority to acquire land and interest in land was narrowly circumscribed. The first BLM acquisition authority was for easements across private land, an important factor for forest management in western Oregon where land ownership is intermingled in checkerboard fashion. Special legislation calling for intensified management of such areas as King Range in California or along the Pacific Crest Trail brought with it the authority to acquire land and interest in land. In 1976, FLPMA gave BLM general acquisition authority but strictly limited condemnation authority to situations where narrow corridors are needed to give access to public lands which would otherwise be blocked. FLPMA also authorized the use of money from the Land and Water Conservation Fund to acquire lands that are primarily valuable for outdoor recreation.

Current Status

The Bureau's acquisition program involves the purchase of easements, primarily to secure access to public land, and acquisition of full (fee) rights to properties to support resource management programs (e.g., for offices, fire control bases, or equipment storage) and for public lands use needs (e.g., recreation, wildlife, purchasing or for in-holdings). The vast majority of the effort, however, has been directed toward securing legal access to public land for public resource users.

In many western States, public access to BLM-administered lands is impeded by intermingled public and private land ownership patterns and by changing land ownership and local laws which have resulted in the closing of some roads previously open to public use.

While the need for acquisition is great in some areas, it is BLM's policy to use its acquisition authority conservatively. It is not the Bureau's policy to add significant new acreage to the Public Domain unless so directed by Congress, but rather to use the FLPMA authority to resolve anomalies in ownership patterns or to acquire easements which contribute in some significant manner to multiple-use and sustained yield management objectives.

In fiscal year 1979, BLM spent $1,064,673 on both fee and easement acquisition under a variety of authorities. The largest single category of spending was $557,500 for 60 scenic easements along the Rogue River in southern Oregon, as authorized in the Wild and Scenic Rivers Act. Another significant acquisition expenditure was $179,000 from the Land and Water Conservation Fund for two recreation sites. Two administrative sites cost $159,000 and numerous easements for forest management cost an additional $80,000.

Issues

The need for public access to public lands has become acute in some areas where ownership patterns have left large isolated blocks of public lands. An estimated 25 million acres of public lands are isolated by lack of public access across other ownerships. Such lands become of little or no use to the general public and are sometimes treated as private lands by adjacent owners without compensation to the American taxpayer.

BLM is currently working with other Federal agencies, State agencies, local governments, and private owners to increase public access to such lands. Many more opportunities exist, however, to work with all levels of government, with tribal units, corporations, and family owners to obtain easements and construct access roads. BLM must be able to take full advantage of such opportunities for cooperative efforts when they arise.

This little-known program is often found on the "critical path" of many on-the-ground implementation activities of BLM. Acquisition of easements across private land to isolated public land blocks is essential, for example, for construction of range improvements, for energy or mineral exploration or development, for timber harvest or planting, for recreation use, for scientific study, for inventory, and for other uses and management purposes. The program is also crucial to meet certain statutory requirements for new recreation area or natural area designations. The recent Rogue River legislation, for example, will require a number of land and easement purchases.

Limitations of staff and funding have required that many acquisition actions be deferred beyond the normal 24 to 36 month processing time. This "backlog" of cases not only delays other crucial programs (forestry, range, energy, recreation, etc.), but increases significantly the cost of case processing by necessitating updating of information and documents. Delays can also cause resentment among land owners and other members of the public involved in the acquisition cases. Some deferred cases cannot be continued at all due to delays, a few opportunities for management improvements are lost, priorities are superseded after substantial expenditure, or actions become too complex to be handled efficiently.

The rising cost of land in recent years has encouraged BLM to work more closely with other Federal agencies, States, local governments, landowners, and organizations to develop new approaches to assessment of land needs as well as new approaches to meeting traditional acquisition objectives. An example of this is the most recent agreement between BLM and the Heritage, Conservation and Recreation Service on recreation acquisitions. That mutual procedure provides for an analysis of the cost effectiveness of land purchase measured against other approaches to providing recreation sites or to resource protection.

Goals

- To utilize new acquisition authorities with restraint to reserve and acquire easements needed to meet a wide array of public land user and resource management needs.
- To acquire small amounts of land for offices, equipment storage, fire bases, and other administration and management needs in Alaska.
- To implement plans on specifically designated intensive management areas, such as the California Desert Conservation Area and the King Range National Conservation Area.
- To exchange for or purchase small private, State, or other agency holdings within public land areas where such action will improve management efficiency, while protecting the needs of the small holder.
- To reduce the "backlog" in acquisitions casework and provide a sustained level of acquisition support to avoid imposing delays on other programs dependent on acquisitions.
- To create a network of access road easements and easement agreements to open all available public lands to public use by the year 2000.

Alternative Investment and Performance Levels

The acquisition program generally consists of three components: (1) engineering route analysis and survey, (2) appraisal to determine fair market value, and (3) negotiations to reach a mutually satisfactory settlement and to minimize the need for condemnation action. Over 80 percent of the proposed program is directed to the purchase of easements to provide legal access to public lands. Administrative sites acquisition, recreation acquisition, special activities such as acquiring land in support of the King Range National Conservation Area program and the California Desert Conservation Area, and payments to equalize values in exchange when the private land offered exceeds in value the public land selected make up the remainder of the proposed program.

Investments

Funding in Thousands (000) of 1980 Dollars

	Requested Appropriation[1]	Existing Authorization[2]		Authorization Analysis			
	FY 1981	FY 1981	1982	FY 1982	1983	1984	1985
Level 1	1,623	2,116	2,116	4,886	4,827	5,762	7,508
Level 2	1,623	2,116	2,116	2,977	3,931	4,367	5,318
Level 3	1,623	2,116	2,116	2,185	2,292	2,399	2,492

Full-Time Permanent Positions

	Existing Ceiling[3]	Existing Authorization[2]		Authorization Analysis			
	FY 1981	FY 1981	1982	FY 1982	1983	1984	1985
Level 1	38	25[4]	25[4]	88	99	105	110
Level 2	38	25	25	62	68	85	98
Level 3	38	25	25	59	61	63	65

[1] Revised President's Budget
[2] BLM Four-Year Authorization for Fiscal Years 1979-1982
[3] Established by the Department of the Interior
[4] Non-statutory: reallocated by the Department of the Interior to meet backlogs and new demands

Performance

	Level 1	Level 2	Level 3
Service, Operations and Maintenance	Of the estimated 3,300 cases which will be referred for acquisition just prior to and during the FY 1982-85 period, 1,575 cases will be completed and significant work will be finished on over 1,000 more (28 percent "backlog").	Of the estimated 2,550 cases which will be referred prior to and during the FY 1982-85 period, 1,100 will be completed and significant work will be finished on over 700 more (42 percent "backlog").	Of the estimated 1,800 cases which will be referred prior to and during the FY 1982-85 period, 680 will be completed and significant work will be finished on 500 more (52 percent "backlog").
Management Planning Analysis[1]	Not Applicable	Not Applicable	Not Applicable

Inventory[1]	Not Applicable	Not Applicable	Not Applicable
Planning[1]	Not Applicable	Not Applicable	Not Applicable
Activity Planning[1]	Not Applicable	Not Applicable	Not Applicable
Implementation[1]	Not Applicable	Not Applicable	Not Applicable

[1] Performance outputs for these elements are multi-resource or multi-program and are described under other program categories.

As the figures in the performance table indicate, the three alternative levels of BLM funding will affect the Bureau's demands on the acquisition program as well as the program's outputs because the program is dependent for its requirements on the other line management programs. That is, as the range, recreation, forestry, and energy and minerals programs vary with the funding levels, the demands that they place on the acquisition program vary with them. It can also be seen in the table that a "backlog" in acquisition actions will develop at Levels 2 and 3 throughout the FY 1982-1985 period. BLM estimates, however, that the annual demand for acquisitions will peak during the decade, so the estimated staffing and funds for response have been kept conservative. At Level 1, the demand peak will occur within 10 years; at Levels 2 and 3, the peak should occur in 12 to 15 and 15 to 18 years respectively.

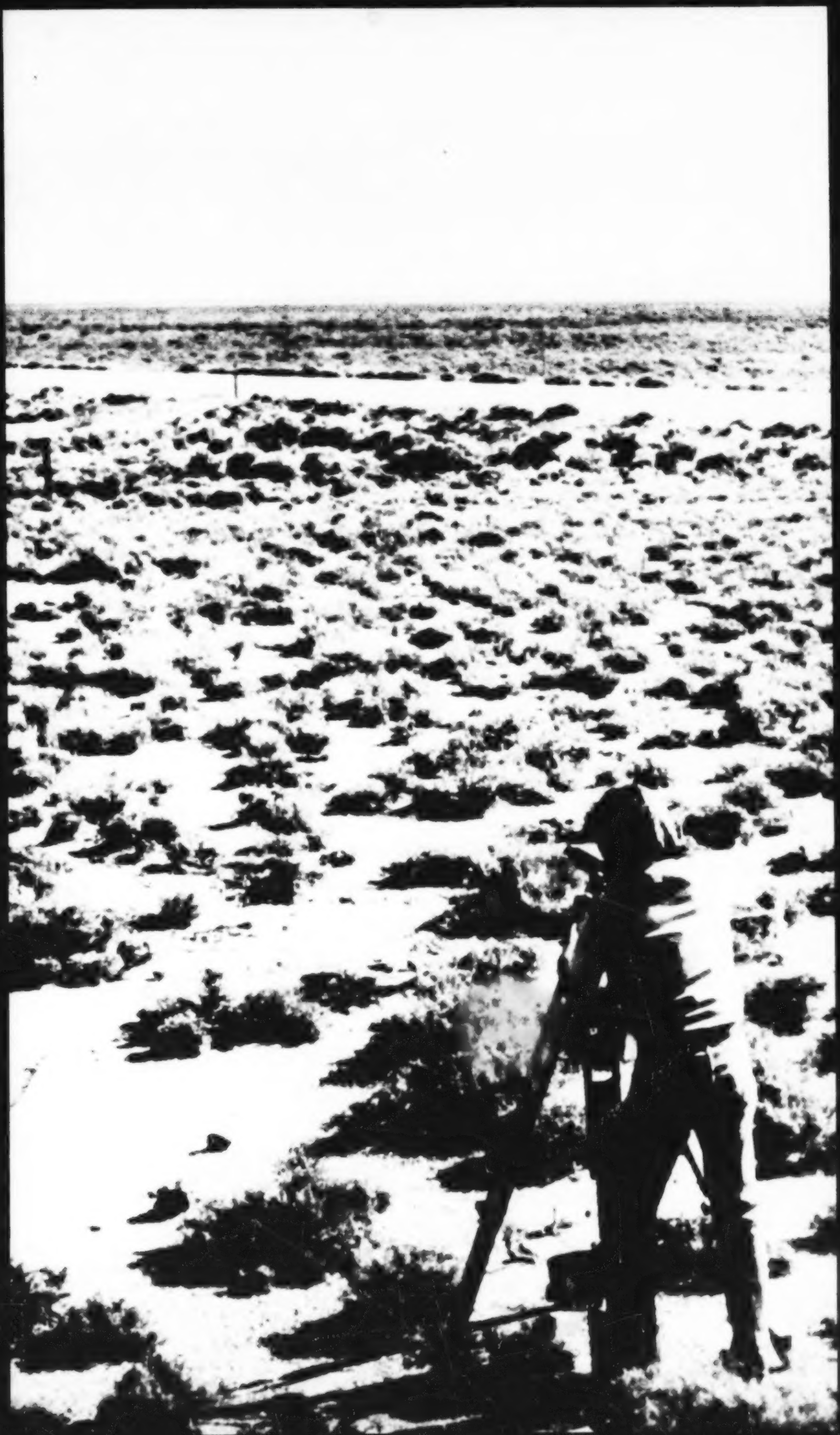
The indicated "backlog" will include a number of deferred acquisitions cases which will take three years instead of two, four years instead of three, etc., to process. Once the demand peaking occurs, such backlogs will erode quickly at Level 1 and successively more slowly at the other two levels.

Relationship to Other Programs

Just as many other programs are dependent on the acquisition program for timely completion of their activities, the acquisition program itself is critically dependent on other key support programs such as Cadastral Survey and Engineering and appraisals. Insufficient funds in prior years for these programs and for the acquisition program itself has delayed many projects in the major resource programs. Energy projects, range activities, recreation, special areas, timber, wilderness, and wildlife programs are often dependent on the Land Acquisition Program for land and interests in land to provide easements for project completion or availability of access to the public. Of particular importance are acquisitions of easements for range improvements and restoration and for major energy activities such as coal, geothermal, and shale leases.

Another significant program relationship is the demand for cash payments to make up differences in value in land exchanges. Lack of sufficient funds for the program will likely create delays in the exchange program. This issue is rather sensitive among several of the western States and their citizens because of long-outstanding exchange requests.

Technical Support and Administrative Services



Technical Support and Administrative Services

Many of the Bureau's efforts are inherently multi-program in nature and serve to provide support to the various resource areas. These support services are discussed in this section in six program areas. They include five technical support functions and one of administrative support. The technical support functions are: cadastral surveying of public lands; data management; construction and maintenance of buildings, recreation sites, roads, and trails on public lands; fire management; and law enforcement as it applies to the public lands and resources. Equal Employment Opportunity is the administrative support function described. All other Bureau-wide administrative functions —such as procurement, budget, and personnel are discussed under Issues in Management and Administration.

CADASTRAL SURVEY

A cadastral survey marks and defines the legal boundaries of a tract of public land by establishing monuments, or corner marks, on the ground and recording their location in field notes and plats. Upon official approval, these documents become a permanent part of the Public Lands Survey System (PLSS). As such, they serve as the legal basis for patents and other documents used for conveyance when public lands pass out of Federal ownership and for overall administration and management of lands retained in Federal ownership[1]. Also included in the PLSS are Federal boundaries on the Outer Continental Shelf. BLM acquired responsibility for the administration and execution of cadastral surveys when the Government Land Office was merged with the Grazing Service to form the Bureau in 1946.

The United States Cadastral Survey Program is as old as the Nation itself. BLM's cadastral survey authority traces back to the Ordinance of May 20, 1785. Passed by the Continental Congress to facilitate orderly settlement of western lands by ensuring marked boundaries and recorded titles, the Ordinance made the survey of public land a prerequisite to settlement and established a rectangular system of survey. Under this system, land is divided into six-mile-square townships, each township containing 36 one-mile-square sections. The first township was surveyed in Ohio in 1786.

Cadastral surveys acquired a quasi-judicial status in 1805 when Congress legislated that real property derived from the public domain by patent should have the protection of immutable boundaries and fixed acreages (43 USC 752). Cadastral surveys define those boundaries and become a part of the patent.

Legally defensible boundaries are essential for identification of ownership so that the classification, management, and wise use of the public lands can proceed. They are needed to define management and use areas, to permit the development of resources without infringing on non-Federal property, and to prevent trespass or the illegal use of Federal land, minerals, and resources. Legal property descriptions are required for public land transfers, energy development, easement acquisition, timber sales, and grants of right-of-way, and these transactions depend upon timely cadastral surveys.

As the Bureau has changed from a land disposal to a land management agency, the traditional task of defining land tracts for sale or transfer has changed as well. While the job of conducting rectangular surveys remains, cadastral surveyors also resurvey areas where markers have disappeared or where an original survey is questionable, and conduct surveys to define areas for special protection and management.

---

[1] Lands retained in Federal ownership include all surface and subsurface interests in lands (i.e., mineral interests) administered by the Secretary of the Interior through the Bureau of Land Management, even though the surface is owned or managed by another governmental unit or a private owner.

Current Status

Original survey work remains a major program element in Alaska, where 90 percent of all original-survey work is now performed. The Alaska Statehood Act of 1958 required the transfer of 104 million acres of Federal lands to the State within 25 years. The task of surveying those lands was compounded by the Alaska Native Claims Settlement Act of 1971 (ANCSA), which provided for a grant of roughly 44 million acres of Federal land to the State's Eskimos, Indians, and Aleuts, as well as for the designation of additional acreage as national parks, wildlife refuges, national forests, and wild and scenic river areas. Before title to any of this land can be transferred to Natives or to State and Federal agencies, boundaries must be surveyed, private rights identified, and municipal boundaries and specialized sites defined.

Including other legislative survey requirements,[2] BLM has completed roughly 65 million or 44 percent of the 149 million acres of survey work in Alaska required under the Alaska Statehood Act and the Alaska Native Claims Settlement Act prior to land transfers to the State and to Native groups. This does not include the additional millions of acres of boundary surveys for national parks, forests, wildlife refuges, and wild and scenic rivers which will be necessary when Congress acts to identify them. Other complex survey tasks for the future include the identification of mining claims, offshore surveying to establish the statutory three-mile limit necessary for defining oil and gas rights, and the survey of lakes and rivers to establish riparian rights. Total unsurveyed acreage in Alaska is estimated at over 300 million acres.

In the Lower 48 States original survey work is about 80 percent complete. Original surveys are now undertaken only when there is a specific need for establishing boundaries, for example, when unsurveyed public land is being made available for State, local, or private purposes. About 85 percent of the cadastral surveys in the contiguous United States are performed to support resource management programs rather than for land conveyances. For the most part, this involves the "maintenance" work of resurveying — correcting fraudulent or grossly erroneous surveys and locating deteriorated markers by reconstructing written and physical evidence. Resurveying in the Lower 48 States is also planned to accommodate program priorities, such as defining forest boundaries for timber harvests.

Much of Cadastral Survey's work in the Lower 48 States is performed on a reimbursable basis for other Federal agencies. BLM performs surveys for the U.S. Forest Service, Bureau of Indian Affairs, National Park Service, Bureau of Reclamation (now the Water and Power Resources Service), U.S. Fish and Wildlife Service, the Department of Defense, and occasionally the Department of Justice, in descending order of workload. The total projected survey needs of these agencies are not fully known, and survey requests are usually made on a year-to-year basis.

Of these agencies, the Forest Service, which manages almost 188 million acres of forest land, has by far the greatest survey needs. In 1958, it began a serious boundary survey program of its own, and since fiscal 1970 the Forest Service survey program has grown at almost twice the rate of BLM's Cadastral Survey program. Unless approved by BLM, however, Forest Service surveys did not carry the full weight of Federal law and did not become part of the public land records system. BLM has investigated the possible efficiencies of delegating the field work portion of a cadastral survey to the Forest Service in conformance with the Manual of Surveying Instructions of 1973. Procedures for doing this have recently been developed and provide for including these surveys in the official record system. Currently, about 10 percent of BLM's cadastral survey appropriation is used for surveys on National Forests. In addition the Forest Service annually transfers to BLM about 1.1 million dollars from its appropriation for surveys.

---

[2] 1906 Native Allotment Act, 1926 Townsite Act, 1898 Homestead and Trade and Manufacturing Sites Act, and the 1927 Homesites and Headquarters Act.

Issues

Internal and external audits, program evaluations, and other investigations undertaken over the last decade have identified staffing, funding, interagency coordination, workload, planning, and organizational problems in the Cadastral Survey program.

In July 1978, the House Appropriations Committee requested an investigation of the cadastral survey programs of the Department of the Interior and the U.S. Forest Service. The report issued by the Survey and Investigations Staff on February 6, 1979, recognized the importance of the Cadastral Survey program to all Federal resource management programs and found that "the BLM program has been inadequate in meeting the needs of resource program managers, not only in BLM, but in other agencies," and that "BLM will never be able to respond satisfactorily to the survey needs of other agencies unless the Cadastral Survey program in the Lower 48, particularly the portion of it addressing the needs of other agencies, is given higher priority."

This problem has two dimensions. First, manpower and funding for the Bureau are simply inadequate to meet the growing government-wide requirement for cadastral surveys. This has caused other agencies—notably the Park Service and Forest Service—to undertake "administrative surveys" on their own when they could not afford the time, often years, required to schedule and complete an official cadastral survey. Lacking the full weight of Federal law, these boundaries will eventually have to be resurveyed, a costly duplication of effort. In some cases, most notably with the National Park Service, disagreements over cadastral survey authority have led to conflict and even litigation.

The second dimension is managerial. It has been difficult for Cadastral Survey to develop a comprehensive picture of surveying requirements and priorities in part because of its decentralized administrative structure and in part because of difficulties with obtaining workload and priority projections from other agencies.

Regardless of how these problems are resolved over the long term, the unit costs of land surveys will be increasing. This is a natural result of completing the larger, and to some extent easier, land surveys first and acknowledges that much of the remaining survey workload, especially in the Lower 48 States, includes smaller and more difficult survey tasks. As a result, the annual acreage surveyed at any constant level of funding will become smaller, and past performance is not a good indicator of future accomplishments.

Goals

- Delineate and identify boundaries of the public lands and provide legal property descriptions for such lands in direct support of ongoing Federal land and resource management programs.
- Provide legal property descriptions for previously unsurveyed islands and omitted lands.

- Survey and identify the boundaries of public lands to support management decisions that call for specific management practice within certain geographic areas.
- Continue the basic rectangular land survey network and maintain and rehabilitate those surveys established prior to 1910 in order to eliminate the backlog of cadastral survey requests.
- Implement the procedures described in the March 19, 1980 Memorandum of Agreement between the Bureau and the Forest Service which describes the terms, conditions, and responsibilities under which authority to conduct field surveys is delegated to the Forest Service.
- Develop a more accurate and useful inventory of workload, including coordination requirements with other affected agencies.

Alternative Investment and Performance Levels

Federal lands cannot properly be managed, protected, or disposed of until surveyed. Legally defensible boundaries are all-important to the wise use, classification, and management of public lands, and to the proper disposal of their resources without infringing upon adjacent private or other non-Federal property. Conversely, responsibilities include the prevention of unauthorized trespass upon Federal lands. The Federal government cannot meet these responsibilities without the delineation of property boundaries on the ground and in the official records.

Investments

Funding in Thousands (000) of 1980 Dollars

	Requested Appropriation[1]	Existing Authorization[2]		Authorization Analysis			
FY	1981	1981	1982	1982	1983	1984	1985
Level 1	20,121	27,141	27,141	27,879	30,450	32,013	33,136
Level 2	20,121	27,141	27,141	24,752	25,198	26,100	27,374
Level 3	20,121	27,141	27,141	23,200	24,215	25,117	25,403

Full-Time Permanent Positions[4]

	Existing Ceiling[3]	Existing Authorization[2]		Authorization Analysis			
FY	1981	1981	1982	1982	1983	1984	1985
Level 1	443	451	451	518	540	557	571
Level 2	443	451	451	454	465	478	492
Level 3	443	451	451	443	443	453	453

[1] Revised President's Budget
[2] BLM Four-Year Authorization for Fiscal Years 1979-1982
[3] Established by the Department of the Interior
[4] Entries in these columns include 106 reimbursable positions

Performance

	Level 1	Level 2	Level 3
Service, Operations and Maintenance	This level of funding will provide the capability to survey the known existing workload of village and regional corporation selections under ANCSA, State of Alaska selections, and other surveys. In the lower 48 States, completion of the national rectangular grid will proceed slowly. Priority will be given to surveys needed to verify ownerships, determine trespass and unauthorized occupancy, and resolve color of title questions. Surveys will cover an estimated 32.6 million acres during the four-year period.	Surveyed acreage will be about 20 percent lower than under Level 1, covering an estimated 25.5 million acres during the four-year period. Some trespass, unauthorized occupancy, and color of title problems will not be resolved. Response to requests from other agencies will be diminished.	Surveys will cover an estimated 24.5 million acres during the four-year period. Some trespass, unauthorized occupancy, and color of title problems will not be resolved. Response to requests from other agencies will be diminished.
Management Planning Analysis[1]	Not Applicable	Not Applicable	Not Applicable
Inventory	Identify boundaries in order that accurate resource inventory data can be developed.	Identify boundaries in order that accurate resource inventory data can be developed.	Identify boundaries in order that accurate resource inventory data can be developed.
Planning[1]	Not Applicable	Not Applicable	Not Applicable
Activity Planning	Activity-plan-related surveys will meet schedules.	Activity planning requiring surveys prior to plan completion will be delayed or not completed.	Activity planning requiring surveys prior to plan completion will be delayed or not completed.
Implementation	Surveys needed to support BLM management decisions and program action will be completed.	Since implementation will proceed at a slower pace under these levels, surveys will be reduced to match the extended implementation timeframes.	Since implementation will proceed at a slower pace under these levels, surveys will be reduced to match the extended implementation timeframes.

[1] Performance outputs for these elements are multi-resource in nature and are described under "Planning and Inventory Coordination."

Relationship to Other Programs

The number of private individuals, government entities, and resource managers who rely on legal surveys to define the areal extent of their ownership, management, and use authority is quite large. All of these individuals and managers are affected by the existence and timeliness of surveys. BLM's capability to resolve ownership and boundary questions and assist all managers in defining and implementing management decisions is dependent upon its capability to conduct cadastral surveys. Actual on-the-ground implementation of needed program actions will be delayed if the survey program is not adequately funded.

CONSTRUCTION AND MAINTENANCE

When BLM was established in 1946, its physical facilities were inherited from its parent agencies, the General Land Office and the Grazing Service. Building space was provided by the General Services Administration. The primitive road system on the public lands reflected the miscellaneous access needs of ranchers, mining companies, railroads, and county and State governments. Many additional miles of road had been built by the Civilian Conservation Corps in the 1930's. Recreation facilities were nonexistent.

As its role in managing the public lands grew, BLM inherited facilities from other agencies, such as the Civilian Conservation Corps and the Fish and Wildlife Service. Investment in construction on the lands remained extremely modest, however, because BLM was still considered an interim custodian of the land pending ultimate disposition. New road construction was limited to those necessary for the development of timber resources in the Oregon and California grant lands, then gradually expanded into other timber regions in California, Idaho, and Wyoming. Building construction until 1963 was limited to firefighting facilities in Alaska. In the 1960's BLM's custodial role gave way to the concept of retention. The new policy was stated clearly in the Classification and Multiple Use Act of 1964 and in the legislation creating the Public Land Law Review Commission. At the same time, public use of BLM lands had skyrocketed, especially recreational use. The existing primitive road system was inadequate for the heavy influx of a new kind of traffic—automobiles and recreational vehicles.

In 1964, contract authority under the Public Lands Development Roads and Trails appropriation empowered BLM to construct roads needed for access to any development or for protection of the public lands, and in 1978 the Transportation Construction program was added to provide funds for roads, trails, landing fields, and bridges as part of its transportation system.

Recreation facilities, including sanitary facilities, picnic tables, fire rings, well-water supplies, and visitor service facilities were also constructed to begin to accommodate the roughly 80 million annual visitors who camp, hike, picnic, hunt, fish, raft, rockhound, or drive recreational vehicles on the public lands.

By 1967, BLM had begun to construct its own office buildings, warehouses, shops, and other facilities tailored to BLM's resource management obligations. Although BLM continues to obtain most of its building space from the General Services Administration, rapid growth and the shortage of GSA facilities, especially in remote locations, often force BLM to construct its own. Specialized structures such as telecommunication facilities, well-pumping buildings, seed storage bins, greenhouses, laboratories, shops, and warehouses frequently need to be constructed to meet specific program needs.

Together, the Building, Recreation, and Transportation Construction and Maintenance programs provide and manage the facilities needed to provide services to ensure the safety of visitors to the public lands, and to support BLM's land and resource management objectives. The program handles all phases of new construction—survey, design, contracting operations, environmental analysis, and general administration—and provides maintenance for all BLM-owned facilities whenever funding permits.

Current Status

Construction needs have been identified at more than 35 locations, including 38 buildings. These plans will be executed in a manner consistent with resource management and land use plans and budgetary constraints.

Some of these projects are major multi-purpose facilities such as a proposed Fairbanks facility which would house the district office and support fire and aviation programs. A new administrative facility at the Boise Interagency Fire Center falls under the same category. A combination of in-house and contracted architectural and engineering work and an increase in the professional engineering staff will be required.

During fiscal year 1979, maintenance was provided to 567 structures, including office buildings, warehouses, shops, storage buildings, fire stations, lookouts, and related facilities such as parking areas and warehouses. Over the past few years, special emphasis has been placed on corrective maintenance for energy conservation. The maintenance program continues to emphasize the reduction of fuel consumption through such measures as the installation of storm windows and doors and the addition of insulation.

Transportation construction, with the exception of timber access roads, has been at a low level, pending completion of resource management plans incorporating transportation plans and completion of wilderness reviews required by section 603 of FLPMA. Some existing road mileage will no longer need maintenance, while in other areas new construction may be necessary.

In fiscal year 1979, BLM constructed or surfaced roads or trails at 10 locations exclusive of timber-sale roads and constructed five bridges excluding timber-sale bridges. Maintenance on 9,298 miles of road, 442 miles of trail, and 13 bridges was performed, emphasizing those that receive the greatest use and would have the highest erosion potential if maintenance were deferred.

Recreation facilities are constructed in accordance with recreation-use plans developed within the BLM planning system. During fiscal 1979, construction was begun or completed on six recreation sites. BLM has identified 13 other needed planned projects throughout the West and in Alaska, including visitor centers, sanitary facilities, cave protection work, campsites, and information stations.

Routine maintenance of recreation sites involves waste disposal and upkeep of drinking water and restroom facilities. Other maintenance activities at sites used for recreation include cleaning and upgrading of sites and hazard correction, as well as protection of cultural resources. For this latter effort, recruitment and training efforts must be expanded.

Issues

As BLM's program responsibilities expand to keep pace with public interest in and use of its lands, construction and maintenance become increasingly pressing concerns. Lack of office and storage space are often problems. Because there is no provision for acquiring or constructing facilities on the basis of projected rather than existing need, the availability of facilities often lags substantially behind the need for them.

As the General Services Administration is increasingly unable to provide required facilities (e.g., office space, warehouses, shops, quarters), even in less remote areas, the construction and maintenance program must be expanded to provide them.

At the same time, BLM shares with facility managers at all levels of government the difficulty of obtaining priority attention for facility maintenance in the face of the greater appeal of new construction. However, as the intensity of public use of its facilities increases, BLM will face increased pressures to emphasize its maintenance responsibilities.

Increasing use of the public lands takes its toll on BLM roads and trails, resulting in erosion problems after heavy use of poorly surfaced roads. Few BLM roads are designed for present use levels or for passenger vehicles. Of the 44,000 miles of road, 32,000 are primitive and approximately 30,000 of these primitive miles need to be upgraded. Many of these roads can only be used seasonally. Moreover, their primitive character can be hazardous to motorists accustomed to the highly developed roads in urban areas.

While BLM constructs and maintains its transportation system primarily to support its own resource management objectives, the public and local authorities often expect BLM to construct and maintain the roads up to the standards of State and county roads. Such demands for expensive improvements, which fall outside BLM's resource management responsibilities or authority, will increase as the number of users grows. In these cases, if the traffic volume warrants, the road may have to be transferred to the local public road authority.

Considering the need for recreation facilities—in 1978 it was estimated that existing facilities accommodated less than 15 percent of demand—BLM constructs and maintains a very modest number of functional facilities for use by the general public. Particular problems relating to high visitor use occur in the California Desert, along the Colorado River between California and Arizona, in caves in New Mexico, in the El Malpais areas of New Mexico, the Little Sahara sand dunes in Utah, and the upper Missouri River in Montana. Stabilization, reconstruction, and protection of archeological sites in southwestern Colorado and in the adjoining States represent major construction needs.

Current plans are to have new construction follow the completion of resource management plans to ensure that the Bureau is fully prepared to deal with the increased use that follows increases in visitor service facilities.

A significant increase in design and construction of dams, fences, water systems, and other physical rangeland investments will occur as the Bureau moves into the implementation phase of its rangeland management program. A failure to make investments associated with the rangeland program decisions will increase the adverse effect of those decisions on ranchers and western communities and will reduce the overall rate of improvement in rangeland conditions.

Goals

The goal of the construction and maintenance program is to provide adequate support to the growing land and resource management and service-related programs of the Bureau, especially in rangeland improvements and recreation.

Subsidiary goals are: to protect the Bureau's capital investment by adequately maintaining existing and future structures and facilities, to increase the efficiency of public service through provision of facilities needed to implement organizational modifications, and to design, construct, and maintain recreation, sanitary, safety, and transportation needs for the users of the public lands.

In order to accomplish this, a maintenance survey will be initiated and corrective maintenance measures taken where necessary to protect the Bureau's investment in buildings. In addition, a long-term preventive maintenance program will be established.

Existing road systems will be re-engineered between FY 1982 and FY 1985 where there are large traffic loads and where existing roads do not meet minimum safety standards for the vehicles using them. New roads, bridges, helipads, airstrips, and trails will also be built to support increased energy and mineral activity, timber production, range management, and other programs.

Alternative Investment and Performance Levels

The primary difference in the various investment strategies involves the total amount of construction and related maintenance activity that will be performed during the four-year period. Construction of buildings increases by 456,000 square feet from Level 3 to Level 2 and by an additional 216,000 square feet from Level 2 to Level 1. Recreation and road construction have corresponding increases from level to level. These numbers, however, should be considered estimates, as increases or decreases in the annual appropriations will result in a ripple effect in each of the subsequent years. At all levels of investment, some maintenance will be performed on all facilities. However, as funding increases, the quality of that maintenance effort will be enhanced. In addition, at Level 1, and to a lesser extent at Level 2, BLM will be able to emphasize preventive maintenance.

Investments [Construction]

Funding in Thousands (000) of 1980 Dollars

	Requested Appropriation[1]	Existing Authorization[2]		Authorization Analysis			
	FY 1981	FY 1981	1982	FY 1982	1983	1984	1985
Level 1	3,771	18,177	20,044	20,734	39,734	44,821	27,152
Level 2	3,771	18,177	20,044	15,551	29,800	33,616	20,364
Level 3	3,771	18,177	20,044	8,824	8,425	8,558	8,786

Full-Time Permanent Positions

	Existing Ceiling[3]	Existing Authorization[2]		Authorization Analysis			
	FY 1981	FY 1981	1982	FY 1982	1983	1984	1985
Level 1	53	82	82	115	126	139	102
Level 2	53	82	82	92	106	109	75
Level 3	53	82	82	72	71	76	75

[1] Revised President's Budget
[2] BLM Four-Year Authorization for Fiscal Years 1979-1982
[3] Established by the Department of the Interior

Investments [Maintenance]

Funding in Thousands (000) of 1980 Dollars

	Requested Appropriation[1]	Existing Authorization[2]		Authorization Analysis			
FY	1981	1981	1982	1982	1983	1984	1985
Level 1	7,730	10,831	11,454	10,179	10,919	12,160	13,599
Level 2	7,730	10,831	11,454	9,076	10,011	11,057	12,234
Level 3	7,730	10,831	11,454	9,008	10,000	10,460	10,739

Full-Time Permanent Positions

	Existing Ceiling[3]	Existing Authorization[2]		Authorization Analysis			
FY	1981	1981	1982	1982	1983	1984	1985
Level 1	75	61	63	126	129	132	142
Level 2	75	61	63	117	118	123	126
Level 3	75	61	63	96	94	98	101

[1] Revised President's Budget

[2] BLM Four-Year Authorization for Fiscal Years 1979-1982

[3] Established by the Department of the Interior

Performance

	Level 1	Level 2	Level 3
Service, Operations and Maintenance	Under this level a maintenance survey will be initiated and corrective measures taken to protect BLM's buildings and facilities. A long-term preventive maintenance program will also be initiated. Routine maintenance of recreation and sanitary facilities will be conducted. General maintenance and elimination of safety hazards on transportation facilities will be consistent with accepted standards.	Routine maintenance will take precedence over preventive maintenance and monitoring. The scope of the maintenance tasks will be somewhat narrower than at Level 1 since implementation (construction) will be delayed.	No preventive maintenance will be conducted at this level. Repairs will continue at about the present level resulting in deterioration of facilities. The scope of the maintenance tasks will be narrower than at Level 1 since implementation (construction) will be delayed.
Management Planning Analysis[1]	Not Applicable	Not Applicable	Not Applicable
Inventory	At all levels transportation inventories will be completed as an input to scheduled Resource Management Plans and revisions. Information needed to support decisions related to maintenance of existing facilities and construction of new facilities will be developed.		
Planning[1]	Not Applicable	Not Applicable	Not Applicable

Activity Planning and Implementation

Construction will be undertaken to support administrative, safety, and program needs and objectives. Environmental assessment usually will be done in connection with the overall program activity plan.

Buildings Under this level a total of 861 thousand square feet of office and other building space will be constructed during the four-year period.

Under this level the total building space constructed will be an estimated 645 thousand square feet.

Under this level the total building space constructed will total an estimated 189 thousand square feet.

The building construction totals for both Levels 1 and 2 include a building complex in Alaska in FY 1982 and administrative and warehouse facilities at the Boise Interagency Fire Center in FY 1983.

Recreation A total of 871 recreation sites will be constructed including visitor information, sanitary, and other recreation facilities. The number of family units constructed for camping, picnicking, etc. will total 2,177.

At this level, 653 recreation sites and 1,633 family units will be constructed.

225 recreation sites and 573 family units will be constructed at this level over the four-year period.

Roads At this level an estimated 831 miles of road, 226 miles of trail, and 43 bridges will be constructed.

At this level, road construction will total 623 miles, with an estimated 170 miles of trail and 33 bridges constructed.

Road construction will total an estimated 225 miles, with 61 miles of trail and 12 bridges constructed over the four-year period.

---

[1] Performance outputs for these elements are multi-resource in nature and are described under "Planning and Inventory Coordination."

Workloads/Outputs

Office Space Constructed
in Thousands (000) of Square Feet

FY	1981	1982	1983	1984	1985
Level 1	17	135	211	72	31
Level 2	17	101	158	54	23
Level 3	17	5	44	14	10

Other Construction
in Thousands (000) of Square Feet

FY	1981	1982	1983	1984	1985
Level 1	5	145	84	135	49
Level 2	5	108	63	101	37
Level 3	5	56	18	26	16

Recreation Sites Constructed

FY	1981	1982	1983	1984	1985
Level 1	1	18	21	400	432
Level 2	2	13	16	300	324
Level 3	2	7	4	76	138

Family Recreation Units Constructed

FY	1981	1982	1983	1984	1985
Level 1	0	391	361	705	720
Level 2	35	293	271	529	540
Level 3	35	152	57	134	230

Miles of Road Constructed or Reconstructed

	FY	1981	1982	1983	1984	1985
Level 1		24	224	259	207	141
Level 2		32	168	194	155	106
Level 3		32	87	54	39	45

Miles of Trail Constructed

	FY	1981	1982	1983	1984	1985
Level 1		4	34	65	52	76
Level 2		4	25	49	39	57
Level 3		4	13	14	10	24

Bridges Constructed

	FY	1981	1982	1983	1984	1985
Level 1		3	8	13	13	10
Level 2		3	6	10	10	7
Level 3		3	3	3	3	3

Relationship to Other Programs

As noted previously, construction is undertaken to support administrative and program needs. Maintenance is undertaken to protect existing investments and to support the continuing program objectives for which the facilities were originally constructed. Realization of environmental, resource program, and social and economic objectives requires that construction and maintenance proceed in concert with the implementation of new management practices. As a result, funds must be available for the construction and maintenance program if these objectives are to be achieved.

The annual construction patterns reflect a need to build those facilities that have already been identified and the best estimates of those that will be identified in the development of program activity plans during the four-year period.

DATA MANAGEMENT

FLPMA gave BLM a strong legislative mandate for comprehensive land use planning, a mandate that was further underscored by the Public Rangelands Improvement Act in 1978. In fact, BLM had been developing such a planning system since the 1960's. To comply with the mandate and in response to a rapidly growing need for analysis of large amounts of data, BLM is in the process of expanding its automated capability for gathering, storing, processing and retrieving resource and other information. This program therefore includes telecommunications and remote sensing as well as the traditional automatic data processing elements.

BLM initiated a study in 1974 to determine its data management requirements for resource and administrative programs. The result of this study, known as the "Strategic Plan for Information Systems Management," is the principal BLM guide for developing data systems, and calls for a seven- to 12-year effort to improve data storage, manipulation, and analysis. Specific goals of the plan are:

- To make information more timely, more readily available, and more useable through automation;

- To reduce both the amount of space required to store records and the possibility of lost records;
- To increase the accuracy of data, especially statistics; and
- To reduce the staff hours required to gather, interpret, and store surface resource information, track vegetative trends, and check on land users (authorized and unauthorized), through the use of satellite and computer-assisted remote sensing.

If sufficient resources are made available to implement the plan, BLM's data management capabilities will include:

- A series of data banks to replace voluminous existing files;
- Easier access to data by Headquarters and Field Offices;
- Capability for remote entry, update, and retrieval of data;
- Availability of textual, numeric, and graphic material in the format desired by the user;
- Capability to identify conflicts in management resource plans;
- Land use and yield trend information;
- Word processing; and
- Production of year-end and other periodic reports.

The computer systems being developed will support one or more of the program functions related to management of lands, range, forestry, watershed, wildlife, recreation, minerals, cadastral survey, fire protection, roads and trails, access, transportation and rights-of-way, personnel, property, and financial management. Under the concept advocated by the Commission on Federal Paperwork and being implemented by BLM, all information storage, manipulation, and retrieval capabilities are managed as an integrated set of activities.

In summary, an efficient information management system is essential to the efficient and effective accomplishment of BLM's resource management and public service responsibilities.

Current Status

BLM has implemented, using its Honeywell on-line computer, a Mining Claim Recordation System that can be accessed by all field offices during working hours. In fiscal year 1979, the Bureau developed and tested a system for managing soil and vegetation inventory information for use in resource planning. The development of inventory techniques is being conducted under a reciprocal agreement with the U.S. Geological Survey (USGS), the Soil Conservation Service, the Forest Service, and the Fish and Wildlife Service. BLM also performed preliminary design work for the land and survey record system in cooperation with the Forest Service. The Fish and Wildlife Service, USGS, and BLM are nearing completion of a three-year test of remote sensing technology and equipment for gathering information on wildland vegetation in cooperation with the National Aeronautics and Space Administration.

BLM's computer headquarters—at the Denver Service Center—was reorganized in fiscal year 1979 to delineate clearly system development, computer technology, computer processing, and records management responsibilities to facilitate data management operations.

Several other steps were taken in this regard.

- Obsolete equipment at the Center was replaced with a 66/80 Honeywell computer.
- A basic telecommunications network was completed to connect the Washington Office and all State Offices with the Center's computer.
- Equipment was acquired to analyze, correct, and enhance information gathered by satellite.

Issues

BLM is about two years behind the 1985 schedule for implementing the Strategic Plan. This delay was caused by the extraordinary workload associated with two priority programs:

- The soil and inventory (SVIM) data requirements of the court-ordered grazing EIS program; and
- The mining claim recordation workload required by FLPMA, eased in part through a contract with Honeywell.

In addition, the strategic plan did not anticipate the extent of detail required in developing many key systems.

As a result of these facts and the increased responsibilities placed on BLM by recent legislation, and the increasing number of requests for assistance and service from the public and other State and local governments, four key issues are apparent.

- **Strategic Plan** The status of the Bureau's Strategic Plan for information Systems Management needs to be clarified.
- **Data Processing System** The Bureau's existing automated data processing systems are unable to fulfill the resource programs' needs for data storage, analysis, retrieval, and dissemination to line managers and the public. There is a need for further evaluation of the availability, quality, and cost of other public and private data processing sources as the Bureau identifies the full scope of its needs.
- **Telecommunications** The Bureau's lands, facilities, and personnel are geographically widely dispersed. As a consequence, the Office of Information Systems faces a major problem in developing a telecommunications network that will allow personnel in dispersed rural areas to communicate with each other and with the ADP center for information acquisition and analysis.
- **Interagency Data Coordination** The Bureau needs to explore the feasibility of further coordinating its data gathering activities and its automated data processing systems with those of other Federal and State agencies in order to improve the quality of data obtained and reduce the total Federal cost of acquiring and managing information.

Goals

The Bureau's information management goal is to develop an integrated information system which meets the needs of its resource management and service programs. Specific goals involve maintaining and acquiring necessary equipment, designing new systems, attracting and maintaining adequately trained personnel, and coordinating the gathering, processing, and sharing of information with other Federal agencies, State and local governments, public land users, and the general public. The target date for completion of system design, development, and testing is 1985.

Alternative Investment and Performance Levels

Resource management, in the present social and political climate, rests on a foundation of knowledge comprised of data and information documented in a variety of formats. The Bureau has a fundamental historical responsibility for the storage and maintenance of land data.

Legal, scientific, and managerial data may be recorded on paper, text, photographs, maps, plats, digital tapes, or electronic imagery. Bureau files contain an estimated 85 million records containing up to a thousand data elements each and stored in more than 120 separate locations from New York City to Fairbanks, Alaska. Managing, analyzing, and providing for the use of this information in response to public requests will require a substantial and continuous financial commitment.

Investments

Funding in Thousands (000) of 1980 Dollars

	Requested Appropriation[1]	Existing Authorization[2]		Authorization Analysis			
	FY 1981	FY 1981	1982	FY 1982	1983	1984	1985
Level 1	14,672	27,764	24,278	26,137	32,774	39,252	45,623
Level 2	14,672	27,764	24,278	22,669	29,295	35,760	42,111
Level 3	14,672	27,764	24,278	21,615	22,562	23,401	23,667

Full-Time Permanent Positions

	Existing Ceiling[3]	Existing Authorization[2]		Authorization Analysis			
	FY 1981	FY 1981	1982	FY 1982	1983	1984	1985
Level 1	163	197	197	274	342	376	403
Level 2	163	197	197	274	341	375	402
Level 3	163	197	197	243	253	263	274

[1] Revised President's Budget
[2] BLM Four-Year Authorization for Fiscal Years 1979-1982
[3] Established by the Department of the Interior

Performance

<table>
<tr><th></th><th>Level 1</th><th>Level 2</th><th>Level 3</th></tr>
<tr><td>Service, Operations and Maintenance</td><td>Installation of telecommunications equipment in 180 offices by 1985. This includes an in-house radio communications network.</td><td colspan="2">Expansion of the telecommunications network after 1982 will be either severely curtailed or stopped under Levels 2 and 3 respectively.</td></tr>
<tr><td></td><td>Additional computer capacity (hardware) will be added to the existing main computer in 1982. Supplementary data processing installations in nine field offices are planned by 1985.</td><td>Supplemental data processing facilities will be expanded to six field offices.</td><td>Supplemental data processing facilities will be expanded to five field offices.</td></tr>
<tr><td></td><td>An additional 59 terminal installations are planned for field offices to allow field personnel to use existing and new computerized hardware and software.</td><td>Fifty-nine terminals will be installed in field offices.</td><td>An estimated 29 terminals will be installed in field offices.</td></tr>
<tr><td></td><td>Following the guidance in the Strategic Plans, efforts will be initiated in FY 82 to determine what automated systems are needed for grazing-license billing, receipt collection, and allowable-cut determinations. Two system designs will be completed, four systems implemented, and 12 new graphics software packages installed.</td><td>New program design will be reduced from the high level and only eight graphics packages will be installed.</td><td>No new graphics packages will be installed at this level and funding will not permit new program design.</td></tr>
<tr><td></td><td colspan="3">Extensive remote sensing for lightning detection systems, automatic weather stations, and other automatic monitoring will be extended at all funding levels.</td></tr>
<tr><td>Management Planning Analysis</td><td>Not Applicable</td><td>Not Applicable</td><td>Not Applicable</td></tr>
<tr><td>Inventory</td><td>Not Applicable</td><td>Not Applicable</td><td>Not Applicable</td></tr>
<tr><td>Planning</td><td>Not Applicable</td><td>Not Applicable</td><td>Not Applicable</td></tr>
<tr><td>Activity Planning</td><td>Not Applicable</td><td>Not Applicable</td><td>Not Applicable</td></tr>
<tr><td>Implementation</td><td>Not Applicable</td><td>Not Applicable</td><td>Not Applicable</td></tr>
</table>

Relationship to Other Programs

The ability to store, analyze, and transform data into information that is useful for making decisions is critical to the responsible management of public lands and resources. Each Bureau program has unique information needs and depends on an adequate data storage and analysis system to accomplish its goals. Of even greater importance is the role of information and modern analytical techniques in reaching management decisions where multiple-use (interdisciplinary) considerations exist. Thus, the ability of the Bureau to respond to its several legislative and policy mandates is dependent on a sound Data Management program.

FIRE MANAGEMENT

The Fire Management program shares with the rest of BLM the broad purpose of protecting and enhancing the resources of the public lands in order to preserve their capability to meet the resource needs of the Nation. More specifically, BLM is responsible for protecting property and natural resource values on the public lands from wildfire; rehabilitating areas damaged by wildfire; and ensuring that "prescribed burning" designed to accomplish a variety of resource management objectives is safely conducted and controlled.

BLM carries out these responsibilities on approximately 440 million acres, including some land administered by other Federal agencies, States, and private parties. It contracts with other Federal, State, and private agencies to protect roughly 6 million acres of this total. Approximately 220 million acres—half the total—are in Alaska.

BLM has entered into cooperative agreements on fire suppression with other agencies, and fire suppression resources not being used by the Bureau are available to the National Park Service, Fish and Wildlife Service, Bureau of Indian Affairs, and Forest Service upon request. States may also benefit from this arrangement where agreements have been negotiated.

The Boise Interagency Fire Center (BIFC) in Idaho serves as BLM's fire suppression support for maintaining and mobilizing interagency firefighting resources. It is usually called upon when fires get beyond the control of local BLM, Forest Service, Bureau of Indian Affairs, Fish and Wildlife Service, or National Park Service officials. BIFC also houses a fire training development center for firefighters from all parts of the country, a communications monitoring and weather command station, and a center for equipment development and research.

Recent trends show an increase in the number of fires and a decrease in the acreage burned, for two reasons. First, increased use of public lands has raised the incidence of fire, even though fire prevention programs have kept the rate of this increase lower than the rate of increased use. Second, in 1972 BLM modified its priorities from combating large "disaster" fires and improved both its initial attack capabilities and early fire-detection systems. Consequently, most wildfires are now brought under control sooner and the acreage burned is less than in the past.

Current Status

BLM's plans for carrying out its fire management responsibilities are contained in Normal Fire Year Plans developed for each BLM District. In the Normal Fire Year Plan, BLM categorizes all public lands into classes of fire problems, based upon historical data on fire occurrence, the value of resources threatened by fire, and the estimated behavior of a fire. Plans for resolving the fire problem of each class are then developed, tested, and evaluated for effectiveness. The final force structure and equipment needs displayed in the plan become the basis for the annual budget. The Bureau's comprehensive Normal Fire Year Plan was completely updated in 1979.

Also in 1979, a Congressional budget increase permitted the purchase of 80 new trucks and pumpers as well as critical communication equipment. BLM is currently evaluating a ground tanker system with cost-cutting potential that actually "expands" water into foam through a compressed air system and foaming agent.

In 1979 the Automatic Lightning Detection System (ALDS), which the Bureau developed in the early 1970's, was expanded to cover virtually all of the 11 western States and Alaska. (Lightning strikes in low-humidity areas are a major cause of wildfire.)

As techniques for controlling fire have improved, all Federal agencies having wildfire suppression responsibilities have been able to adopt new procedures to use fire as a resource management tool. Prescribed burning is used to enhance wildlife habitat, improve range forage mixes, improve watersheds, improve the visual backdrop, and remove forest harvest residue, as well as for many other applications.

New regulations on fire management pursuant to FLPMA have been drafted and will be released for public review in the fall of 1980.

Issues

Prescribed burning is a new tool in BLM's stock of resource management techniques. Only recently have fire-control know-how and technology reached a point at which fire can be set for positive purposes with confidence. Resource managers have long known that controlled burning is a cost-effective way of controlling the growth of brush on rangelands, limiting competition from undesirable plantlife, improving wildlife habitat, and limiting the build-up of flammable debris. BLM has been studying the effects of fire on various ecosystems and last year prepared a handbook of guidelines for the use of prescribed burning. Test fires were set according to these guidelines and studied to evaluate the handbook's accuracy and usefulness.

Although technical problems remain, public awareness is now a major difficulty. The Bureau is currently working with the Forest Service, which administers the Smokey the Bear program, to develop information programs on fire to communicate the distinction between fires that are planned and controlled and unplanned wildfire, without undermining public concern for fire safety.

In addition to expanding the acceptance and use of prescribed burning to diminish the potential for unplanned fires on public lands and to enhance other resource values, three other issues require attention and an expanded Bureau capability.

- **Interagency Fire Management in Alaska** Interagency fire management plans need to be established in Alaska, where the Bureau of Land Management is currently providing fire suppression services for all Interior agencies and Native holdings.
- **Planning for Fire Management** Fire management planning needs to be accelerated so that fire protection and the constructive use of fire can be fully integrated into other resource management objectives, such as brush control in rangeland management.
- **Up-Front Financing of Emergency Firefighting and Rehabilitation** The costs of emergency firefighting and rehabilitation are currently met through deficit financing. This requires borrowing funds from other

accounts and then obtaining supplemental appropriations to reimburse those accounts. This system, involving the transfer of funds from other accounts, is administratively cumbersome and can be disruptive to the programs from which the funds are borrowed.

Goals

The fire management program is comprised of two components, fire suppression and prescribed burning. The Bureau's fire management goals are to:

- Reduce the number of large fires;
- Reduce man-caused fire occurrence;
- Reduce total fire costs;
- Maintain a level of fire protection commensurate with increased values of resources including improvements;
- Provide technical expertise in the use of fire; and
- Develop sound fire management plans that support and meet resource management objectives.

Alternative Investment and Performance Levels

Historically, the Fire Management program has been funded in two ways. Congress authorizes and appropriates base-level funding to support fire management planning and programming. The cost of putting out wildfires and rehabilitating burned areas is reimbursed by Congress in the following year as noted above.

The relatively small funding and personnel differences between funding levels would provide a basis for increasing the effectiveness of preventive actions and would provide early attack capabilities that can reduce the number and severity of wildfires, and ultimately reduce the total cost of wildfire to the Nation.

Investments

Funding in Thousands (000) of 1980 Dollars

	Requested Appropriation[1]	Existing Authorization[2]		Authorization Analysis			
	FY 1981	**FY 1981**	**1982**	**FY 1982**	**1983**	**1984**	**1985**
Level 1	8,383	22,410	27,390	10,099	11,066	11,468	12,253
Level 2	8,383	22,410	27,390	9,775	10,524	11,008	11,560
Level 3	8,383	22,410	27,390	9,454	10,043	10,628	10,873

Full-Time Permanent Positions

	Existing Ceiling[3]	Existing Authorization[2]		Authorization Analysis			
	FY 1981	**FY 1981**	**1982**	**FY 1982**	**1983**	**1984**	**1985**
Level 1	147	252	252	192	211	222	233
Level 2	147	252	252	172	182	192	202
Level 3	147	252	252	157	164	172	177

[1] Revised President's Budget. The amounts in this column do not include funding for emergency fire suppression and rehabilitation.

[2] BLM Four-Year Authorization for Fiscal Years 1979-1982

[3] Established by the Department of the Interior

Performance

	Level 1	Level 2	Level 3
Service, Operations and Maintenance	At this level of investment the acreage of land burned in wildfires will be reduced from 828,000 in FY 81 to 710,200 in FY 85. The number of fires exceeding ten acres or more per year will decrease from 360 to 238 in the same time-period. This is based on full implementation of the Normal Fire Year Plan by 1985.	The objectives of the Normal Fire Year Plan will not be fully met. Suppression costs will be $1.25 million in FY 82 to $2.5 million in FY 85 per year higher than at Level 1, and 165,000 more acres will be burned. The total number of fires 10 acres or larger will decrease from 360 to 277 per year.	The objectives of the Normal Fire Year Plan will not be fully met. Suppression costs will be an estimated $10 million more than at Level 1 and acreage burned will be 208,000 acres more than at Level 1. The total number of fires 10 acres or larger will decrease from 360 to 300 per year.
Management Planning Analysis[1]	Not Applicable	Not Applicable	Not Applicable

Inventory

Classification of all public lands by Fire Problem Class based on values threatened, fire history, fire occurrence, etc. is necessary for maintenance of the Normal Fire Year Plan and to provide a basis for development of prescribed burning plans. The Bureau's ability to collect such information is reflected in reductions in the extent of wildfire damage (see Service Operations Maintenance above) and in the successful use of controlled burns (see Implementation below).

Planning[1]	Not Applicable	Not Applicable	Not Applicable
Activity Planning	The planning required to conduct safe and effective prescribed burning depends upon the acreage covered in such burns at each investment level. See below.		
Implementation	Prescribed burns will be increased from 50,000 acres in FY 1981 to 120,000 acres in FY 1985.	Prescribed burns will increase from 50,000 acres in FY 1981 to 90,000 acres in FY 1985.	Prescribed burns will increase from 50,000 acres in FY 1981 to 78,000 acres in FY 1985.

[1] Performance outputs for these elements are multi-resource in nature and are described under "Planning and Inventory Coordination."

Relationship to Other Programs

Reducing overall fire damage and using prescribed fire prevent damage to existing resources and provide a cost-effective way of achieving a number of resource management objectives. Other social objectives, such as avoidance of resource loss and maintenance of public safety, are served by an effective fire management program. It appears certain that more costly alternatives to prescribed burning will limit the rate at which the goals of other programs may be achieved.

The cost of suppressing major wildfires and subsequent rehabilitation work is traditionally reimbursed by the Congress in the following budget year. The impacts on other programs would be largely eliminated if annual appropriations were made for the estimated full cost of fire suppression and rehabilitation. The Bureau therefore proposes that Congress provide, as a part of the four-year authorization request and as a part of the Bureau's annual appropriations, funding in the amount of $45 million in each fiscal year to cover the estimated cost of emergency firefighting and rehabilitation. (This amount is not included in the Investments table.) At the end of each year, unobligated appropriations would lapse, or costs in excess of appropriations would be met through a supplemental appropriation as is currently the case. As noted by the General Accounting Office in their report of February 29, 1980, this approach to financing emergency fire suppression and rehabilitation would show the full cost of the program and would be a more open approach to financing the costs of this well-accepted program.

LAW ENFORCEMENT

Until 1976, the Federal government relied almost completely on State and local enforcement officials to enforce State law as it applied to the public lands and their resources. Occasionally, the Federal Bureau of Investigation would act to enforce Federal law when gross violations, such as major timber thefts, occurred. The Taylor Grazing Act gave the Secretary of the Interior authority to prosecute violators of laws or regulations, but limited that authority by making punishment subject to proof of willful violation. FLPMA's Section 303, passed in 1976, requires the Secretary of the Interior to issue regulations to effect its provisions and subjects to fine and imprisonment anyone found guilty of knowingly and willingly violating them. While placing a great deal of reliance upon local law enforcement officials, FLPMA also authorizes the Secretary to use Federal personnel to carry out FLPMA's law enforcement provisions.

A concerted law enforcement effort on the public lands began shortly before the passage of FLPMA. The Wild Free-Roaming Horse and Burro Act of 1971 provided basic authority for the hiring of BLM's first special agents. Amendments to the Sikes Act of 1974 and other subsequent special acts added additional authority in specified areas. But it was the passage of FLPMA that gave BLM general law enforcement authority covering all its lands.

Currently, BLM relies on three different types of law enforcement agents: uniformed rangers who are assigned to patrol the California Desert; special agents who investigate and prepare cases for prosecution; and local law enforcement officers working under contracts or cooperative agreements. Some 25 to 30 percent of BLM law enforcement funds is spent on cooperative programs.

Current Status

BLM law enforcement specialists estimate that 85 percent of their work involves crimes against property, including wild horses. Something of the value and diversity of public land resources can be seen in the list of cases which special agents have investigated in the last five years: timber theft, wild horse killing and theft, desert land entry fraud, removal of cactus for commercial use, mineral theft, range arson, theft and destruction of coral on the Outer Continental Shelf, destruction of recreation sites, trespass on public lands, removal or defacement of antiquities, and public lands survey marker destruction.

In 1979, BLM employed 17 rangers and 18 special agents, all well-trained in law enforcement. Many of them have degrees in some phase of public land management and all have completed an eight-week police school at the Federal Law Enforcement Training Center or its equivalent. Four new agents were hired to facilitate investigation of the Alabama coal trespass, which involved suspected theft of large amounts of federally owned subsurface coal; to improve enforcement of the Wild Free-Roaming Horse and Burro Act; and to assist in prosecuting abusers of the Adopt-a-Horse program.

Issues

A major issue raised in the public comment on this Report was the need to provide strong technical support to other Bureau programs so that resource management objectives will be achieved and public services will meet projected needs. As use of public land increases, and as development increases as a result of planning decisions, the need for effective law enforcement grows.

Current BLM law enforcement authority consists of arrest authority or authority to issue warnings. There is no intermediate authority to issue citations for court appearances. Experience indicates that the arrest, imprisonment, and fine authority under FLPMA is too severe to be effective and that the vast majority of offenses would best be dealt with by citation. This situation was publicly expressed at a Federal Land Policy and Management Act Symposium recently sponsored by the University of Arizona. Following publication of the symposium, Senator Henry Jackson introduced legislation (S-2209) to confer such authority.

A study of law enforcement on the public lands completed for BLM in 1979 by the National Sheriff's Association reported that local law enforcement authorities, while very willing to cooperate with BLM and accept Federal funds for the enforcement of State and local laws on public land, are unwilling to enforce Federal law. Local officials are reluctant to acquire additional training or to learn about Federal court procedures, both of which are necessary if they are to take on Federal law enforcement duties. The possibility of increasing Federal law enforcement on the public lands through contracts with local law enforcement agencies, therefore, looks slim. Local law enforcement priorities are sometimes at odds with BLM's national values, and it is difficult in such cases for BLM to exercise national enforcement priorities. Any intensification of the law enforcement effort directed principally at protecting national values will most likely require Federal funding of BLM personnel.

The sharing of law enforcement resources between BLM and the Forest Service constitutes a potentially valuable opportunity. Though considerable support for this idea now exists in both agencies, new legislation or amendments to existing legislation are required to make it possible.

Goals

The goal of the Bureau's law enforcement program is to curb the illegal use of the public lands and abuse of the resources on these lands through an aggressive preventive program of public education and, where necessary, investigation and apprehension.

Alternative Investment and Performance Levels

Bureau special agents and range personnel have responded to a wide variety of criminal violations. Investigations have been conducted for: theft and destruction of antiquities; killing of wild horses for commercial uses; theft of desert cactus and other vegetation; range arson; land entry fraud; timber theft; mineral theft; destruction of recreation facilities; theft and destruction of coral reefs on the Outer Continental Shelf; violation of off-road vehicle regulations; general trespass; and assaults on BLM employees. However, the Bureau is primarily a resource managing agency, not a general law enforcement agency, and therefore has a limited resource protection staff. The Bureau does not foresee the need for a large internal law enforcement structure. Managerial responsibility for the law enforcement program has been delegated to the State Directors.

The investments and performance information shown in the tables reflects the capability of BLM to develop and execute cooperative agreements (for enforcement of State and local laws on public lands) with local agencies and to investigate cases of suspected illegal activity under the different funding and personnel levels.

Investments

Funding in Thousands (000) of 1980 Dollars

	Requested Appropriation[1]	Existing Authorization[2]		Authorization Analysis			
	FY 1981	FY 1981	1982	FY 1982	1983	1984	1985
Level 1	1,541	3,735	5,104	3,700	4,724	5,981	6,431
Level 2	1,541	3,735	5,104	2,820	3,316	3,987	4,284
Level 3	1,541	3,735	5,104	1,838	1,902	1,975	2,024

Full-Time Permanent Positions

	Existing Ceiling[3]	Existing Authorization[2]		Authorization Analysis			
	FY 1981	FY 1981	1982	FY 1982	1983	1984	1985
Level 1	22	110	152	64	80	121	132
Level 2	22	110	152	40	53	66	79
Level 3	22	110	152	28	30	32	33

[1] Revised President's Budget
[2] BLM Four-Year Authorization for Fiscal Years 1979-1982
[3] Established by the Department of the Interior

Performance

	Level 1	**Level 2**	**Level 3**
Service, Operations and Maintenance	107 Cooperative Agreements 6,964 Cases investigated	52 Cooperative Agreements 5,550 Cases investigated	22 Cooperative Agreements 4,072 Cases investigated
Inventory	Not Applicable	Not Applicable	Not Applicable
Planning	Not Applicable	Not Applicable	Not Applicable
Activity Planning	Not Applicable	Not Applicable	Not Applicable
Implementation	Not Applicable	Not Applicable	Not Applicable

Relationship to Other Programs

Although the Law Enforcement program is relatively small and the Bureau does not foresee a need for a large program, a public awareness of this program and effective protection of public lands and resources are essential to the accomplishment of the goals and policies contained in the legislation under which the Bureau operates. Thus, other programs such as cultural resources, rangeland management, and wildlife management all depend on an effective law enforcement program to protect public resources from the few who would destroy them or remove them illegally.

EQUAL EMPLOYMENT OPPORTUNITY

The Civil Rights Act of 1964 and subsequent legislation and Executive mandates provide firm policy and procedural requirements both to prohibit discrimination in hiring on the basis of race, religion, color, sex, national origin, and age, and to provide for positive action to ensure equality of opportunity.

Current Status

The Bureau prepares Affirmative Action Program Plans, including Federal Equal Opportunity Recruitment Plans, for 19 State and other offices, as well as a comprehensive plan applicable to the entire Bureau. There are established complaint procedures to ensure compliance with requirements and Special Emphasis Programs for the placement of women and minorities in occupations in which they are under-represented. An additional method to enhance equal opportunity in hiring has been to develop new recruiting sources through cooperative efforts with natural resource management institutions and institutions serving a high number of minority students.

Finally, the Bureau also has a responsibility under Title VI to assure that participation in and benefits of programs and activities receiving Bureau assistance are not denied on the basis of race, color, sex, or national origin.

Issues

The Bureau has three principal EEO issues to address. First, women and minorities are under-represented in many of BLM's most populous occupations, including those in the natural resource management programs. Second, in order to provide a pool of qualified minority and women candidates for positions in which they are under-represented, BLM needs to encourage more women and minority students to study in the field of resource management and to provide information on employment opportunities within the Bureau for people with such backgrounds. Third, BLM needs to make a special effort to receive comments from minorities and women through its advisory boards, and its public information and comment programs, so that plans and actions reflect their needs.

Goals

The goals of the Equal Employment Opportunity Program are to:

- Ensure that its Affirmative Action and other plans are comprehensive and results-oriented;
- Increase representation of minority and women in targeted occupations;
- Treat and process complaints in a timely and equitable manner;

- Implement systems for review of all applications for BLM assistance to ensure that opportunities to participate in and receive benefit from these actions are not denied on the basis of race, color, religion, age, sex, or national origin;
- Negotiate curriculum extensions and accredited natural resource curricula at institutions serving minority and women students to increase the pool of qualified women and minorities for BLM positions; and
- Increase the awareness of women and minorities of the opportunities available to them to become involved in the Bureau's public participation programs.

Investments

Funding in Thousands (000) of 1980 Dollars

	Requested Appropriation[1]	Existing Authorization[2]		Authorization Analysis			
	FY 1981	**FY 1981**	**1982**	**FY 1982**	**1983**	**1984**	**1985**
Level 1	990	Not Applicable		2,959	3,003	3,200	3,247
Level 2	990	Not Applicable		2,876	2,913	3,108	3,140
Level 3	990	Not Applicable		2,789	2,832	3,030	3,076

Full-Time Permanent Positions

	Existing Ceiling[3]	Existing Authorization[2]		Authorization Analysis			
	FY 1981	**FY 1981**	**1982**	**FY 1982**	**1983**	**1984**	**1985**
Level 1	30	Not Applicable		61	70	72	75
Level 2	30	Not Applicable		52	57	63	65
Level 3	30	Not Applicable		50	55	61	63

[1] Revised President's Budget

[2] BLM Four-Year Authorization for Fiscal Years 1979-1982. Equal Employment Opportunity is spread among all programs and is not identified as a separate program.

[3] Established by the Department of the Interior

Performance

Level 1	**Level 2**	**Level 3**

Service, Operations and Maintenance

The major activities of the Equal Employment Opportunity Program are described below. While all of these mandated activities will be performed at each funding level, higher funding levels enable this program to promote the Nation's equal employment opportunity and affirmative action goals more effectively.

Affirmative Action Plans. Affirmative Action Program Plans developed for the Bureau as a whole and State and other offices will outline specific steps to be taken to reach objectives and alleviate identified problems.

Federal Equal Opportunity Recruitment Plans (FEORP). FEORP's developed for the Bureau as a whole and State and other offices will, by FY 1985, have targeted 12 of the most populous occupational series in which women and minorities are under-represented. Recruitment sources and methods will be developed and implemented as a part of these plans to increase employment of women and minorities in these occupations. Increased funding will allow potential recruitment sources to be more thoroughly evaluated and researched, thereby expanding the pool of potential candidates and creating a better chance of attaining recruitment goals.

Complaints. BLM will develop and implement a tracking system for complaints. The Bureau will continue to provide training to counselors and EEO officers in order to assure that as many problems as possible are resolved in the pre-complaint stage and that complaints are processed in a timely and fair manner. Increased funding will allow a more rapid and thorough response to complaints.

Title VI. The Bureau will implement a Title VI program to be established in FY 1981, including application reviews and compliance monitoring.

Cooperative Education. BLM will negotiate curriculum extensions with identified institutions and recognized natural resources management institutions, as well as negotiate development of new, accredited natural resource curricula at identified institutions.

Special Emphasis Program. BLM will continue to evaluate, develop, and implement goals and timetables for hiring women and minorities in occupations in which they are under-represented.

Management Planning Analysis	Not Applicable	Not Applicable	Not Applicable
Inventory	Not Applicable	Not Applicable	Not Applicable
Planning	Not Applicable	Not Applicable	Not Applicable
Activity Planning	Not Applicable	Not Applicable	Not Applicable
Implementation	Not Applicable	Not Applicable	Not Applicable

Issues in Management and Administration

Issues in Management and Administration

A number of the issues identified by government officials and members of the public during the Four-Year Authorization consultation process do not fit neatly into program descriptions. Some of these non-program-specific issues involve new or emerging responsibilities for the Bureau that are not yet incorporated into the agency's existing programs. Others cut across program lines and involve many, if not all, of the agency's primary programs. Some of the issues identified during the consultation process concern the Bureau's relations with other governmental and non-governmental entities. Still others relate to the effectiveness of the administrative support available to the agency's primary resource management programs. Changing needs and emerging responsibilities are the focus of another group of issues.

BLM is responding to many of these issues, in whole or in part. In other cases, new approaches and responses are being sought and tested to deal with upcoming problems. Some of these activities have been initiated, or will be discussed in the earlier portions of this chapter. Activities and new approaches currently under study are considered program development, a part of administrative overhead which is included in individual program costs at all alternative funding levels. Finally, some issues and BLM responses may not require new budgetary resources, but rather may only require substitution of more effective procedures or authorities. For these reasons, no cost and staffing data are included with the discussion of these issues.

Issues Concerning BLM, Other Agencies, and the Public

A number of State, tribal, and local agencies, as well as local citizens, feel that their concerns are sometimes not adequately considered in the public lands and resource planning decisions that affect them and their activities. There are several BLM programs which have the potential to cause adverse social and economic impacts on local communities, especially in the West, and are of special interest. A number of affected and potentially affected individuals and communities do not feel that they have sufficient voice in the decisions that will affect them. Sorting out the human and community impacts of national-interest decisions raises a new class of equity questions for public land management and, not incidentally, increases the frequency of law suits.

The Bureau is addressing these related matters in several ways. First, BLM planning regulations (43 CFR 1601.4-3) require Bureau managers to meet not only the letter, but the spirit of the consistency requirements of Section 202(c)(9) of FLPMA. The Bureau's new regulations provide that, in addition to being consistent with the approved and adopted plans of State, local, and tribal governments, to the extent consistent with Federal law, BLM managers must be consistent to the maximum extent practical with the approved policies and programs of such governmental bodies.

In the last few years BLM has expanded its capability to assess the socioeconomic impacts of public resource management decisions, especially in OCS oil and gas leasing, coal leasing, and rangeland management. Coordination of these and other impact-related program activities is also improving. In the next five years BLM will seek more efficient means of obtaining needed information and improving projections of potential impacts. In addition, the Bureau is exploring potential measures to mitigate adverse program impacts where they are unavoidable.

Also under consideration are: new lease stipulation and sales contract approaches to mitigation; an analysis of the potential costs and benefits of the energy impact loan program authorized by FLPMA v. existing energy impact programs in other agencies; and provision of better information to potentially impacted communities on assistance and compensation available from the Federal government. Fundamentally, the Bureau wants to take extraordinary measures to ensure that its management decisions have minimum negative impacts.

Additionally, State and local agencies and members of the public expressed confusion about seemingly overlapping Federal jurisdictions and differences in policies and procedures among Federal jurisdictions. At President Carter's request, pursuant to his Second Environmental Message of August 2, 1979, the Department of the Interior and BLM, and the Department of Agriculture through the Forest Service, Soil Conservation Service, and Science and Educational Administration (Extension Service) have agreed to coordinate the planning, policy, and procedures of major natural resource management programs of the Nation. This effort was first initiated by the Congress in the enactment of FLPMA, and then in the Public Rangelands Improvement Act of 1978, which required efforts to coordinate several activities between BLM and the Forest Service, including grazing fees and land use planning. Other Department of Agriculture and Department of the Interior agencies will be added to the current agreement as appropriate.

The opportunity for more effective participation by the public in BLM's planning and decision making is of interest to virtually all groups and persons consulted. Many respondents emphasized that they did not want more meetings, but rather a better process. Most also recommended that the Bureau significantly improve the public availability of information regarding BLM programs, policies, and processes.

Misunderstandings and conflicts concerning Bureau programs, created by inadequate information and ineffective public participation can create costly delays in BLM planning and program operations. Lack of public knowledge restricts effective public participation, and as a consequence, decisions do not reflect real public concerns or needs.

The Bureau is now working with many groups and individuals to devise new opportunities and approaches for more effective participation without significantly more meetings. BLM is testing new concepts and working with such groups as the League of Women Voters, the Council of State Governments, and the National Association of Counties to find ways to get more fruitful exchanges of information and needs with individuals and State and local governments. In the next few years BLM will also be considering various ways of providing the public with more useful information so that they may better take advantage of Bureau programs and services on the public lands and better participate in public land decisions.

The way in which this four-year authorization document was prepared—with one-to-one consultation with officials and individuals—is an example of the new focus of public participation the Bureau wants to emphasize. Additionally, BLM is examining new means to:

- Provide more focused and effective participation of State, tribal, and local governments and the public in the planning process of the Bureau;
- Expedite responses to governmental requests for exchanges, land transfers, grants, and use authorizations, where possible;
- Mediate difficult conflicts to avoid costly and unproductive litigation; and
- Establish formal conflict resolution channels and joint working procedures through cooperative agreements with governmental agencies at all levels.

Legal, Regulatory, and Procedural Issues

Several public and governmental sources also noted that potential conflicts in statutes and overlapping regulations, policies, and procedures have created impediments to effective resource management and delayed responses to requests for action. Examples include: perceived conflicts between the Carey Act and other land disposal requirements v. the Federal retention policies of FLPMA; claims filed for minerals not intended to be locatable (such as building stone); and the complexity of many of BLM's use authorization procedures.

Pursuant to Executive Order 12044 of March 1979, all BLM regulations are being reviewed every five years to provide greater simplicity in both language and requirements. Many BLM regulations have been totally rewritten within the last three years as a part of the implementation of FLPMA (1976), the OCS Lands Act Amendments of 1978, the Public Rangeland Improvement Act of 1978, and other recent legislation. The large number of statutes does produce complex regulations, and because they reflect the many goals and demands for public lands resources, some may appear to be contradictory. Regulations are often necessary, however, to help make public lands users aware of their responsibilities under these laws, as well as to avoid legal complications in processing use authorizations which can produce delays and litigation. BLM is, and will be, making a concerted effort to eliminate unnecessary regulations; to streamline necessary procedural requirements;

to conduct appropriate analysis of the impacts of any new or revised regulations; and to ensure clarity in format and language. Further, to ensure implementation of these efforts we have broadened the opportunity for public participation through public meetings, workshops, and comment periods.

Issues Concerning Management and Decision-Making Effectiveness

The public feels that public lands management will be more effective if decision-making powers are delegated to State Directors, or Area and District Managers, who are more familiar with local conditions than officials in Washington. Both the Department and BLM's Director agree. For the last two years, there has been a slow but steady delegation of authority to the field offices for decision-making authority for contracts, impact statements, and land actions. More delegation of authority is anticipated during the FY 1982-1985 period.

Still another issue concerns perceptions, both within and outside of BLM, that the Bureau must improve the quality and frequency of both its compliance monitoring activities, and its monitoring and testing of the effectiveness of its own resource management activities. Monitoring to ensure compliance with permit, lease, and rights-of-way stipulations is necessary to ensure protection of public resources and investments. However, these follow-up activities compete for fiscal and personnel resources with demands for front-end actions. Monitoring of existing permits and authorizations is often postponed when there are significant backlogs of permit applications which require response. However, the need to strengthen BLM's follow-up monitoring activities has been recognized in developing specific program investment requirements in alternative funding and position levels for resource programs.

Monitoring the effectiveness of resource management decisions, particularly impending grazing allotments, is also of concern to many. So are the data and techniques the Bureau uses to make these decisions. In analyzing, planning for, and assessing resources and resource management options, BLM is dependent upon a variety of scientific research results and technologies beyond inventory data. Until recently, there was no focus or policy coordination for the Bureau's various scientific support programs. BLM has recently established a Resource Science staff to perform these functions.

The Resources Science staff will identify needs and priorities for obtaining scientific information and provide Bureauwide direction and guidance for applied research activities. A related effort will be to improve coordination with scientific activities of other Federal agencies and the science communities to ensure that, where appropriate, their efforts are relevant to BLM needs and integrated into BLM programs and functions.

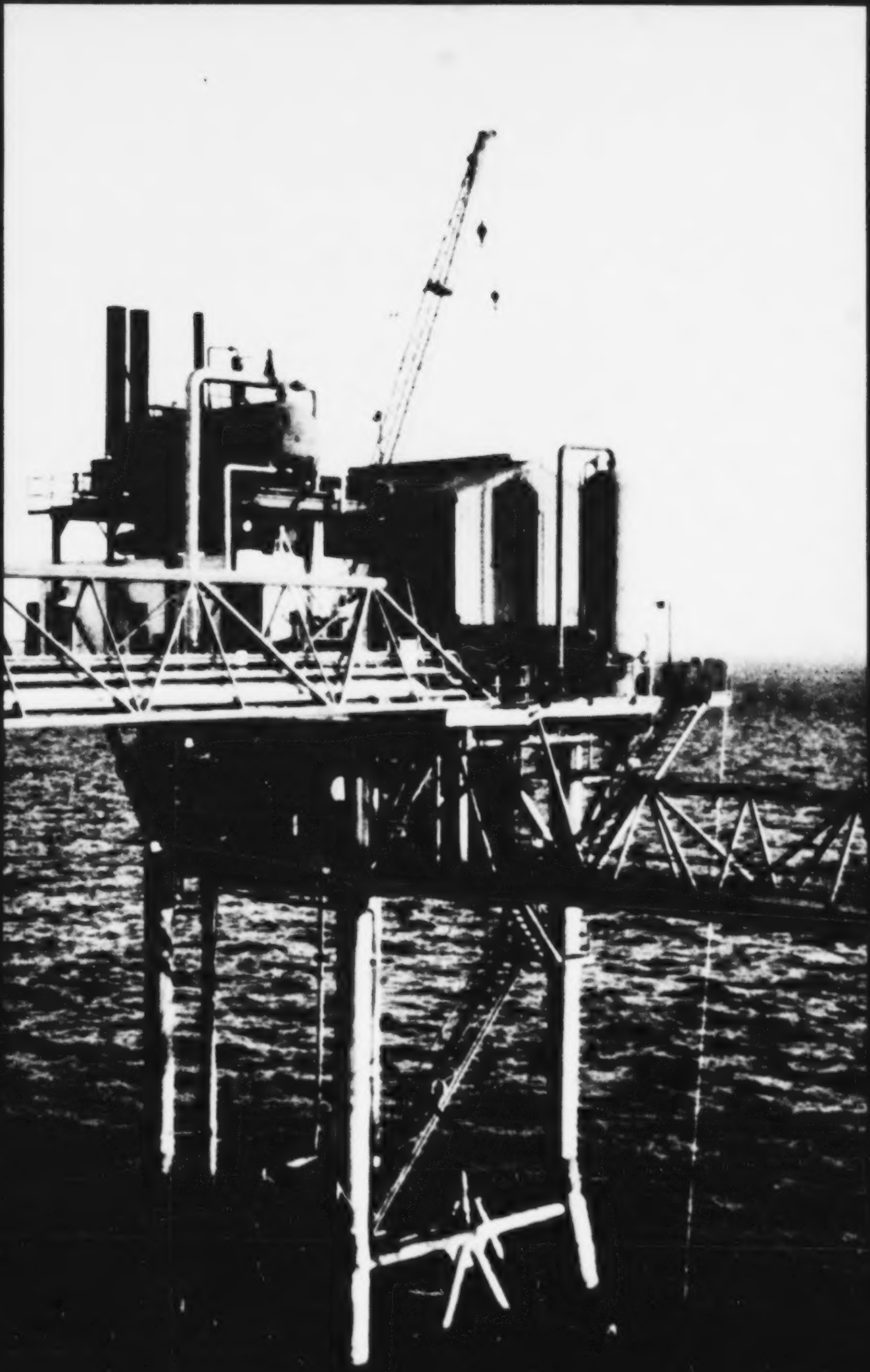
A final issue regarding BLM's management and decision-making processes is the need to fully implement the President's directive, contained in his August 1979 Environmental Message, to establish a "comprehensive program development process" for managing the public lands. The analysis, planning, and development of alternative funding strategies which went into the development of this Four-Year Authorization request respond to this directive. However, additional efforts are needed to improve this program development process, which supplements the Bureau's area-by-area planning. One element which the Bureau intends to make special efforts to improve over the next four years is its ability to make more rigorous, long-range analyses of funding and personnel requirements needed to perform projected or proposed workloads, and to develop a better data base for making these analyses.

Goals

The Bureau's goals for management and administration for FY 1982 - FY 1985 include:

- To create and sustain within the Bureau a philosophy of public service, an attitude of initiative, helpfulness, cooperation, and assistance to the users of public lands;
- To resolve, where possible, differences between the policies, priorities, and procedures of the Bureau and those of other governmental entities, public land users, land owners, and others who are affected by activities on the public lands;
- To ensure that the local impacts associated with the development of nationally significant resources are considered in decision making and that appropriate measures are taken to reduce substantially or mitigate these impacts where they cannot be avoided;
- To promote the goals of President Carter's Small Community and Rural Development Policy by working closely with State, local, and tribal units of government in matters affecting their interests and by effectively responding to the continuing daily needs of the individual users of public lands and resources in the West and their affected communities;
- To ensure that the Bureau is prepared to respond to new Congressionally mandated or created responsibilities;
- To eliminate unnecessary regulations and ensure that new or revised regulations are clear and understandable, reflect meaningful considerations of alternatives, and minimize compliance costs, paperwork, and other burdens imposed on the public;
- To improve the Bureau's program development processes by improving the analytical base of its program planning efforts, to ensure cost-effective and efficient investments;
- To improve public understanding of the responsibilities, activities, and services of the Bureau; and
- To improve opportunities for the individuals and groups in the public and for State, local, and tribal units of government to be involved in Bureau decision making.

Receipts and Allocations



Receipts and Allocations

The development and use of public land resources managed by BLM generate receipts from a variety of sources. Bonus bids and royalties from the leasing of Outer Continental Shelf resources account for the vast majority of receipts, roughly 81 percent of total receipts in fiscal year 1979, for example. Continuing public interest in mineral exploration on public lands is strongly reflected in the 1978, 1979, and projected 1980 receipts from BLM programs—a trend started in 1973 when international energy supplies became increasingly unstable and costly.

Offshore oil and gas leasing on the Outer Continental Shelf (OCS) resulted in an increase in 1979 of about $1 billion over the $2.2 billion received in 1978. Sales scheduled for 1980 may bring total OCS-related receipts to $6.3 billion.

Onshore receipts are generated from timber sales, grazing fees, oil and gas, coal, and other leasable minerals, hardrock mineral development, and other user fees. Again, the minerals dominate. Onshore mineral receipts amounted to $402 million in 1978, increased to $486 million in 1979, and are expected to go to about $600 million in fiscal year 1980.

Exclusive of the offshore OCS leasing program, receipts from the development and use of the resources of public lands were allotted in fiscal year 1979 as follows:

- $329.6 million or 42 percent were returned to States and counties;
- $198.3 million or 25 percent were distributed to the Reclamation Fund and other special funds;
- $256.6 million or 33 percent were deposited in the U.S. Treasury general fund.

The following tables portray the actual or anticipated annual receipts and allocations for fiscal years 1978 through 1980, as well as showing the appropriation levels for the Management of Lands and Resources (MLR) and Acquisition, Construction and Maintenance (ACM) accounts.

Receipts and Allocations

	Actual FY 1978	Actual FY 1979	Anticipated FY 1980
Statement of Public Lands Receipts			
Mineral Leases and Permits	$ 402,286,094	$ 486,480,307	$ 600,000,000
Sales of Public Land and Material	1,609,366	9,239,954	3,400,000
Sales of Public Timber	10,219,126	13,789,941	12,700,000
Fees and Commissions	31,813,475	39,730,131	45,000,000
O&C Lands (Timber Sales)	172,579,472	193,548,297	220,000,000
Coos Bay Wagon Road Lands (Timber Sales)	12,594,793	10,870,170	10,000,000
Grazing Fees	15,590,142	18,976,265	26,000,000
Rights-Of-Way	862,186	869,213	800,000
Miscellaneous Leases and Permits	5,207,860	1,187,265	17,600,000
Non-operating Revenue[1]	11,226,862	8,991,523	—
Other[2]	590,332	900,581	—
Totals	$ 664,579,708	$ 784,583,647	$ 935,500,000
Allocation of Public Lands Receipts			
States and Counties	280,359,772	329,596,184	393,000,000
Reclamation Fund	158,961,034	197,579,280	233,000,000
Indian Trust Funds	348,903	768,437	900,000
General Fund	224,909,999	256,639,746	308,600,000
Totals	$ 664,579,708	$ 784,583,647	$ 935,500,000
Statement of Outer Continental Shelf Receipts			
Totals	$ 2,276,494,211	$ 4,171,646,025	$ 6,300,000,000
Allocation of OCS Receipts			
General Fund	2,259,308,176	3,267,375,733	4,800,000,000
Escrow Account	17,186,035	904,270,292	1,500,000,000
Totals	$ 2,276,494,211	$ 4,171,646,025	$ 6,300,000,000

[1] Incidental receipts from fines, taxes, etc., which are unrelated to routine public land administration. These receipts cannot be accurately projected for FY 1980.

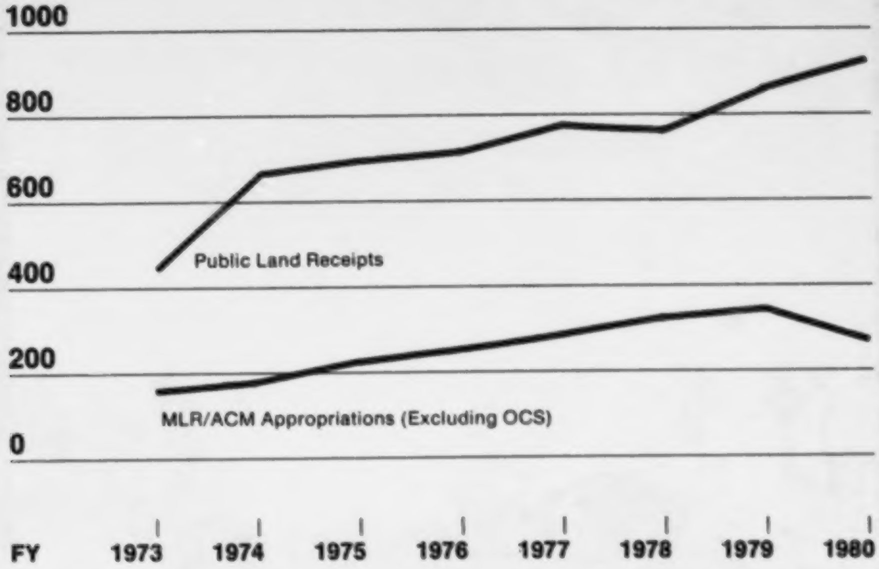
[2] Receipts from miscellaneous materials sales under the Materials Disposal Act. These receipts cannot be accurately projected for FY 1980.

Summary of Receipts and MLR/ACM Appropriations
in Millions of 1980 Dollars ($000,000)

	FY 1973	1974	1975	1976[1]	1977	1978	1979	Estimated 1980	8-Year Average
Public Land Receipts	453	657	697	701	785	775	855	936	
MLR/ACM Appropriations (Excluding OCS)	171.0	184.3	214.9	224.2	277.5	312.3	343.9	266.3	
Ratio of Receipts to Appropriations	**2.65**	**3.56**	**3.24**	**3.13**	**2.83**	**2.48**	**2.49**	**3.51**	**2.99**
OCS Receipts	6,527	10,325	3,440	3,522	2,933	2,654	4,547	6,300	
OCS Appropriations	2.4	5.3	43.9	72.8	72.5	67.4	51.4	51.9	
Ratio of Receipts to Appropriations	**2,719.58**	**1,948.11**	**78.36**	**48.38**	**40.46**	**39.38**	**88.46**	**121.39**	**635.52**
Total BLM Receipts	6,980	10,982	4,137	4,223	3,718	3,429	5,402	7,236	
Total MLR/ACM Appropriations	173.4	189.6	258.8	297.0	350.0	379.7	394.3	318.2	
Ratio of Receipts to Appropriations	**40.25**	**57.92**	**15.99**	**14.22**	**10.62**	**9.03**	**13.7**	**22.74**	**23.06**

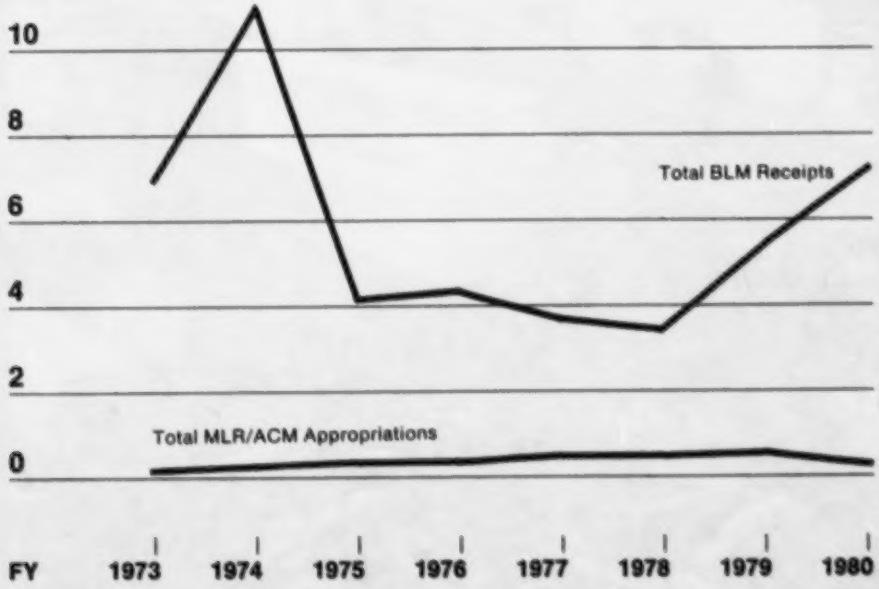
[1] Excludes Transition Period (July, August, September 1976) Receipts and Appropriations.

Summary of Public Land Receipts and MLR/ACM Appropriations[1] (Excluding OCS)
In Millions of 1980 Dollars
($000,000)



[1] Excludes 1976 transition period receipts and allocations.

Summary of Total BLM Receipts and MLR/ACM Appropriations[1] (Including OCS)
In Billions of 1980 Dollars
($000,000,000)



[1] Excludes 1976 transition period receipts and allocations.

Other Funding Sources

Other Funding Sources

Most of the programs and activities discussed in the preceding sections of this chapter are funded through either the Bureau's Management of Lands and Resources account or the Bureau's Acquisition, Construction and Maintenance account. Taken together, these two budget categories account for approximately 83 percent of the Bureau's full-time permanent positions and 37 percent of the Bureau's total budget. The other 63 percent of the Bureau's budget is comprised of ten separate budget categories.

The summary table of other funding portrays the estimated annual levels of funding and personnel for each of these accounts for FY 1981-1985. While each of these accounts will be briefly discussed in this section, only two of them—Payments in Lieu of Taxes and Mineral Impact Loans—are subject to Section 318(b) of the Federal Land Policy and Management Act of 1976 and thus part of this four-year authorization request. The other eight accounts are funded out of receipts from grazing fees and sales of forest products or are based on the continuation of funding for permanent appropriations.

Summary of Other Funding[1]

FY	1981	1982	1983	1984	1985
Payments in Lieu of Taxes ($000)	111,000	114,000	117,000	120,000	123,000
Full-Time Positions	(2)	(2)	(2)	(2)	(2)
Mineral Impact Loans ($000)	57,000	65,000	0	0	0
Full-Time Positions	(5)	(5)	(0)	(0)	(0)
Oregon and California Grant Lands ($000)	57,000	73,800	75,500	84,900	83,800
Full-Time Positions	(809)	(1,450)	(1,450)	(1,470)	(1,470)
Range Improvements ($000)	13,500	13,500	13,500	13,500	13,500
Full-Time Positions	(83)	(85)	(90)	(100)	(100)
Recreation Development and Operation of Recreation Facilities ($000)	300	300	300	300	300
Full-Time Positions	(3)	(3)	(3)	(3)	(3)
Service Charges, Deposits, and Forfeitures ($000)	9,600	9,600	9,600	9,600	9,600
Full-Time Positions	(93)	(93)	(93)	(93)	(93)
Permanent Appropriations ($000)	430,595	500,000	556,000	593,000	639,000
Full-Time Positions	(6)	(6)	(6)	(6)	(6)
Working Capital Fund ($000)	300	300	300	300	300
Full-Time Positions	(21)	(21)	(21)	(21)	(21)
Miscellaneous Trust Funds ($000)	700	700	700	700	700
Full-Time Positions	(3)	(3)	(3)	(3)	(3)
Allocation Accounts from Other Federal Agencies ($000)	16,165	17,802	27,070	31,100	31,125
Full-Time Positions	(30)	(30)	(30)	(30)	(30)

[1] This table summarizes program expenditures other than Management of Lands and Resources and Acquisition, Construction and Maintenance. Of these programs only Payments in Lieu of Taxes and Mineral Impact Loans are subject to the Four-Year Authorization.

Payments in Lieu of Taxes

In 1976, Congress passed the Payments in Lieu of Taxes (PILT) Act to authorize annual payments to local units of government containing certain Federally owned, tax-exempt "entitlement" lands. Serving as a supplement to revenue-sharing funds, PILT payments are made directly to local governments and may be used for any governmental purpose.

The Act stipulates that entitlement land payments equal to the greater of either 75 cents per acre, reduced by the amount received in the preceding fiscal year from certain revenue-sharing acts, or 10 cents per acre, with no revenue-sharing reductions, are to be made each year. These payments may not, however, exceed specified limitations based on population. Additional payments are made for each of the first five years for lands or interests therein acquired, after 1970, for additions to the National Park System and the National Forest Wilderness System provided property taxes were paid the last five years they were privately owned. Payments for each year are equal to one percent of their fair market value when acquired but not in excess of the amount of real property taxes assessed and levied in the last year the land was in private ownership.

BLM processes PILT payments for Federal entitlement lands administered by BLM and six other Federal agencies: National Park Service, the Forest Service, the Corps of Engineers, the Water and Power Resource Service (formerly the Bureau of Reclamation), the Department of the Army, and the

Fish and Wildlife Service. These agencies furnish current acreage information, the Bureau of Census provides current population statistics, and State governments report the amount of revenue-sharing funds passed through to local governments.

"Entitlement lands" consist of lands in the National Forest System and the National Park System, lands administered by BLM, lands dedicated to the use of Federal water resource development projects, dredge disposal areas under the jurisdiction of the Army Corps of Engineers and, effective in fiscal year 1979, National Wildlife Reserve Areas, inactive and semi-active Army installations and certain lands donated to the Untied States government. The Act specifically prohibits payments for lands (but not certain donated lands) that were tax-exempt before being acquired from State or local governments.

Since PILT payments were started on September 30, 1977, over $307 million has been paid to the States; about $104 million of that amount having been paid in fiscal year 1979.

The PILT computation process requires each State to submit data on the amount of revenue-sharing funds received by units of local government in the preceding fiscal year. This amount is then deducted from the PILT payments for the current year. In fiscal year 1978, $87.3 million was deducted from PILT payments as a result of the revenue-sharing provision. In fiscal year 1979, these deductions increased to $148.3 million.

Following distribution of the 1977 payments, two units of local government in Nevada and the States of South Dakota, North Dakota, Colorado, and Kansas protested the extent to which BLM included revenue-sharing payments in computing payments to local units of government. They argued that revenue-sharing funds distributed to school districts should not be counted as receipts by the units and therefore should not be subtracted from their PILT payments. The case was submitted to the Comptroller General, who, in October 1978, ruled that Federal revenue-sharing payments that States either pass through directly to school districts or other single or special purpose districts or pay to local governments which are required by State law to be passed through to independent school districts or other independent single or special purpose districts should not be used to reduce the PILT payments.

The Comptroller General's ruling provides State governments with some degree of control over PILT payments. If they increase direct revenue-sharing payments to special purpose districts, units of local government may receive an increase in PILT funds through the form of lower deductions. However, because of the PILT acreage and population limitations, local governments could find that PILT payments do not make up for reduced Federal revenue-sharing funds passed through by the States.

Current Status During fiscal year 1979, payment adjustments were made to units of local government in 22 States in addition to regular annual payments to about 1,600 units of local government. These adjustments were necessitated by the Comptroller General's decision and corrected revenue-sharing data from eight States.

Recent audits by the General Accounting Office and the Department's Office of the Inspector General disclosed that much of the revenue-sharing data furnished by States are inaccurate. They found that these inaccuracies can be attributed to misunderstandings, lack of concern, or inability of State officials to report this information.

As an interim measure, BLM is adopting the Inspector General's recommendation to amend the PILT regulations by requiring that all State-submitted data be audited by independent certified public accountants or qualified State auditors. Proposed regulations were issued in a notice of rulemaking dated January 24, 1980.

Issues The Payments in Lieu of Taxes Act is imprecise as to which units of local government are eligible for PILT payments. BLM has received many complaints from school districts and townships in States where counties are the eligible recipients. In Michigan, for example, the Michigan Township Association brought a suit against the Department seeking a judgment that Michigan townships, rather than counties, are entitled to PILT payments. If the Michigan townships are eventually successful, the PILT computation process will suffer further complication. The Court in this case has accepted the criteria for determining which units of local government are eligible for payments and directed the Department to consider additional data in applying these criteria. Since this decision was handed down, townships in Pennsylvania, which have brought a similar suit, have asked if the Department would agree to a dismissal of their suit if the counties and townships can arrive at an agreement with regard to sharing in-lieu payments.

In fiscal year 1978, the Department supported proposed legislation to clarify the eligible units of local government and to remove the ineligibility of tax-exempt acquired lands. Although other amendments to the PILT Act made certain additional lands eligible for PILT, they failed to clarify the issue of eligible units of local government.

The Federal District Court's decision in the Michigan case appears to have resolved a major problem by accepting the Department's criteria for determining payment eligibility.

Other complaints have been made about the exclusion of certain lands from the PILT process. The Act is unclear about lands that are "dedicated to the use of water resource development projects of the United States."

Imperial County, California, formally protested the exclusion from PILT of certain undeveloped public lands withdrawn by the Water and Power Resource Service (WPRS). A hearing was held before the Interior Board of Land Appeals (IBLA), which ruled in favor of the county on April 16, 1979. This ruling will significantly affect PILT payments to the county and possibly others where WPRS undeveloped lands are located. It is uncertain whether the ruling will be precedent for determining the eligibility of other undeveloped lands. The Department's Solicitor has requested a clarification of the ruling and has advised the Bureau to withhold action until further guidance is given.

Mineral Impact Loans

The upsurge in energy development on the public lands in the coming decade will generate a host of problems for local governments, principal among them ensuring the provision of public services—schools, hospitals, water and sewer systems, police, and fire protection—in the face of rapidly growing populations. FLPMA increased revenue sharing by amending the Mineral Leasing Act to raise the share of mineral receipts returned to the States from 37.5 percent to 50 percent. FLPMA also stated that these funds could be used for any purpose a State legislature directs, with priority to be given to the State subdivisions that are socially or economically impacted by mineral development.

FLPMA also authorized the Secretary of the Interior to make loans to States or their subdivisions impacted by Federal mineral development. While funds were authorized under this provision for FY 1979 and FY 1980, no funds were appropriated for either of these fiscal years. As legislation is currently pending in the United States Congress to establish and fund other Federal energy impact assistance programs, the Bureau is not requesting an authorization for fiscal years 1982-1985 for the mineral impact loan program. A supplemental authorization will be required to fund this program if the Administration and Congress decide to implement it.

Oregon and California Grant Lands

Twenty-five percent of the revenue from timber harvesting on the revested Oregon and California (O&C) Grant Lands is made available to BLM for four principal activities on the revested lands in the 18 O&C counties of western Oregon. Funds will finance the following activities.

Construction and Acquisition Provides for the expansion of the warehouse and seedling storage facilities at Roseburg, Oregon; construction of additional facilities at two developed recreation sites; construction of eight miles of timber access road; surfacing of seven miles of existing road; construction of two major drainage structures; and acquisition of 67 road easements for access to commercial timber areas.

Maintenance Provides for maintenance of access roads, operation and maintenance of recreation facilities, and maintenance of administrative facilities.

Renewable Resource Management Provides for reforestation, timber stand improvement, sale of timber including mortality salvage and commercial thinning, forest genetics, protection, and other resource management actions on O&C lands.

Planning and Data Management Provides for the preparation and updating of Bureau planning system documents and for automated data processing development costs in support of the management of O&C lands and their resources.

The current status of the Oregon and California Grant Land Fund is as follows (in Thousands of Dollars):

Carryover into FY 1980	$ 8,834
Estimated new budget authority FY 1980	+ 55,000
Total available FY 1980	$ 63,834
Obligations FY 1980	- 62,700
Carryover into FY 1981	$ 1,134
Estimated new budget authority FY 1981	+ 57,500
Total available FY 1981	$ 58,634
Obligations FY 1981	- 58,200
Carryover into FY 1982	$ 434

New budget authority in the O&C fund is a direct function of the current year receipts from the harvest of timber and other commercial products on O&C lands and is, therefore, largely uncontrollable.

These balances normally provide a reserve against periods when conditions might result in reduced levels of timber harvesting with the associated reductions in projected new budget authority. Thus, the availability of funds in excess of planned obligations provides necessary flexibility to react to current conditions in western Oregon and meet planned levels of activity even though current year receipts may not, in and of themselves, support such levels.

The decrease in the obligation program from $62,700,000 in FY 1980 to $58,200,000 in FY 1981 is primarily the result of the one-time funding increases in FY 1980 for expansion of the Sprague Seed Orchard, site acquisition and design for the Eugene District complex, the Bureau's share for expansion of the Forest Service nursery in Medford, and funding for the cooperative Forestry Intensified Research Project.

Range Improvement Fund

This appropriation is derived from grazing fees and certain mineral leasing receipts collected during the previous year. Grazing fees from public lands and Bankhead-Jones Farm Tenant Act lands and mineral leasing receipts from the Farm Tenant Act lands are available for appropriation. When appropriated, the funds are used for rangeland improvements and for maintenance of rangeland facilities such as fences and water developments and cattleguards.

The amount available for appropriation in FY 1981 (based on estimated FY 1980 receipts) represents an increase of $2,880,000 over the amounts available in 1980. This increase is attributable to an increase in grazing fees of from $1.89 per Animal Unit Month (AUM) in the 1979 grazing year, to $2.36 per AUM in the 1980 grazing year (+$2,680,000) and a $200,000 increase in mineral leasing receipts from Farm Tenant Act lands.

For purposes of receipt estimates, the grazing fee for the 1981 year is anticipated to be $2.38 per AUM which will influence the level of this appropriation in fiscal year 1982.

Recreation Development and Operation of Recreation Facilities

The Recreation Development and Operation of Recreation Facilities appropriation is derived from recreation user fees and related concessionaire fees collected pursuant to the Land and Water Conservation Fund (16 USC 4601-6a(f)), as amended. The program is operated in conjunction with recreation funds available under the Acquisition, Construction and Maintenance appropriation; O&C Grant Lands Fund; and the Management of Lands and Resources appropriation. The total appropriation request for FY 1981 is $3 million, the same as in FY 1980.

Service Charges, Deposits, and Forfeitures

This appropriation finances the costs of specific activities by making certain deposits (service charges, performance bonds, damage collections, and other fund sources) immediately available to BLM. As established by the Federal Land Policy and Management Act of 1976, the account provides management flexibility and ensures the immediate availability of funds for activities such as major rights-of-way processing. This flexibility and fund availability is particularly important given the unpredictability of the timing and location of rights-of-way applications which are by far the largest activity in the appropriation.

A significant portion of the 1981 program will be issuance of oil and gas pipelines rights-of-way permits under Title I of the 1973 Amendments to the Mineral Leasing Act of 1920. That title provides authority to the Secretary of the Interior to process and issue permits for oil and gas pipeline rights-of-way which cross lands administered by two or more Federal agencies. Processing applications and monitoring construction and operations for about 100 rights-of-way projects including the Trans-Alaska pipeline, other oil and gas pipelines, electric transmission lines, railroad extensions, and water delivery systems will also continue.

In addition to rights-of-way processing and repair of damaged lands, this budget proposes to continue to finance certain costs of BLM's Adopt-a-Horse Program through this account.

Permanent Appropriations

This appropriation provides for shared receipts collected in association with the sale, lease, or use of public lands and resources with the States and, in some cases, counties where such lands and resources are located. Receipts are collected by BLM and specified percentages of these funds are distributed to States and counties to provide financial assistance in accordance with various laws. The various laws specify the precise share of receipts to be paid, and in some instances indicate how the funds must be used.

This account also provides for the permanent appropriation of funds collected from commercial road users on roads maintained by the Bureau in lieu of user maintenance. This is normally applicable to roads subject to heavy, continuous use involving several users at a time, such as mainline timber access roads in western Oregon. The funds are permanently appropriated by statute and, therefore, do not require an annual appropriation.

The following activities are included within the total appropriation:

- Leasing of grazing lands;
- Payments to Coos and Douglas Counties, Oregon, receipts from Coos Bay Wagon Road grant lands;
- Payments to counties, Oregon and California grant lands;
- Payments to States (proceeds of sales);
- Payments to States from grazing receipts, etc., public lands outside grazing districts;
- Payments to States from grazing receipts, etc., public lands within grazing districts, miscellaneous;
- Payments to States from receipts under Mineral Leasing Act;
- Payments to counties, national grasslands; and
- Expenses, road maintenance deposits.

Miscellaneous Trust Funds

This appropriation includes two trust accounts:

Land and Resource Management Fund Funds in this trust fund are derived from administrative and survey costs paid by applicants for conveyance of lands omitted in original survey, advances for other types of surveys and conveyances including mineral conveyances requested by individuals, and contributions made by users of Federal rangeland and others for conservation practices, acquisition, protection, and other purposes.

Trustee Funds, Alaska Townsites Amounts received from the sale of Alaska town lots are available for expenses associated with the sale and maintenance of townsites.

Of the estimated $700,000 for these funds in FY 1981, $600,000 will be available from permanent appropriations. However, revenues for unsurveyed islands and surveys of omitted lands, administrative costs of conveyance, and gifts and donations must be appropriated before they can be used.

Summary of Alternative Funding Levels by Program Categories

Summary of Alternative Funding Levels by Program Categories

The following three tables display the total dollars and personnel required at alternative funding Levels 1, 2, and 3 for fiscal years 1982, 1983, 1984, and 1985. Totals at each Level are broken down into the same program categories that are analyzed in detail in the program subsections of this chapter. For purposes of comparison, the President's proposed 1981 budget figure for each program is included in all three tables. All figures are given in 1980 dollars.

Level 1 Funding by Program Categories

	Funding Requirements in Thousands (000) of 1980 Dollars						Personnel Requirements Full-Time Permanent Positions					
	FY	1981[1]	1982	1983	1984	1985	FY	1981	1982	1983	1984	1985
Planning and Inventory Coordination		14,172	23,345	23,684	26,006	25,324		327	385	393	402	412
Energy & Minerals												
Onshore Energy-Coal		27,617	30,870	33,345	33,389	35,048		378	429	429	429	429
Onshore Energy-Other		16,541	26,977	28,020	32,342	38,937		336	508	535	579	660
Offshore Energy		48,294	69,757	67,895	84,734	75,980		243	309	313	313	322
Non-energy (Onshore)		8,632	14,515	15,435	16,004	17,970		192	279	298	313	352
Non-energy (Offshore)		132	1,796	1,294	1,297	1,299		3	6	6	6	6
Renewable Resources												
Range Management		45,726	75,474	81,071	92,604	109,994		765	980	1,030	1,061	1,113
Wild Horses & Burros[2]		(6,051)	(9,227)	(9,677)	(9,933)	(10,745)		(57)	(79)	(87)	(85)	(90)
Soil, Water & Air		22,703	34,796	37,009	36,642	36,761		215	461	518	557	527
Forest Management		8,346	12,573	13,234	13,603	13,972		176	230	247	257	270
Wildlife Habitat		17,942	28,159	29,682	31,558	33,773		194	295	393	401	428
Recreation & Environmental Areas												
Recreation Management		6,504	13,823	17,215	20,737	23,490		95	217	279	303	329
Visual Resources		356	637	781	830	781		30	47	54	56	60
Cultural Resources		3,448	12,300	15,650	15,250	13,550		55	83	85	105	108
Natural History		232	1,830	3,010	5,590	9,080		2	10	20	40	75
Wilderness		10,574	16,390	18,100	17,650	18,950		117	160	174	172	222
Lands & Realty Management												
Lands & Rights-of-Way		32,504	42,429	45,149	46,945	49,053		865	1,076	1,160	1,209	1,254
Land Acquisition		1,623	4,886	4,827	5,762	7,508		38	88	99	105	110
Technical Support & Administrative Services												
Cadastral Survey[3]		20,121	27,879	30,450	32,013	33,136		443	518	540	557	571
Construction & Maintenance		11,501	30,913	50,653	56,981	40,751		128	241	255	271	244
Data Management		14,672	26,137	32,774	39,252	45,623		163	274	342	376	403
Fire Management		8,383	10,099	11,066	11,468	12,253		147	192	211	222	233
Law Enforcement		1,541	3,700	4,724	5,981	6,431		22	64	80	121	132
Administrative Support Services												
Management & Administration		3,859	6,126	6,794	7,533	7,809		123	195	217	240	249
Equal Employment Opportunity		990	2,959	3,003	3,200	3,247		30	61	70	72	75
Total		326,413	518,370	574,865	637,371	660,720		5,087	7,108	7,748	8.167	8,584

[1] President's FY 1981 Budget figure.

[2] Non-add item: included in Range Management figure.

[3] 106 positions are reimbursable from other agencies.

Level 2 Funding by Program Categories

	Funding Requirements in Thousands (000) of 1980 Dollars					**Personnel Requirements** Full-Time Permanent Positions				
	FY 1981[1]	**1982**	**1983**	**1984**	**1985**	**FY 1981**	**1982**	**1983**	**1984**	**1985**
Planning and Inventory Coordination	14,172	23,345	23,684	26,006	25,324	327	385	393	402	412
Energy & Minerals										
Onshore Energy-Coal	27,617	30,870	33,345	33,389	35,048	378	429	429	429	429
Onshore Energy-Other	16,541	25,094	25,619	29,905	34,272	336	460	493	534	585
Offshore Energy	48,294	65,092	63,932	80,784	70,783	243	278	281	281	282
Non-energy (Onshore)	8,632	12,797	13,000	13,464	15,424	192	236	260	272	301
Non-energy (Offshore)	132	1,796	1,294	1,297	1,299	3	6	6	6	6
Renewable Resources										
Range Management	45,726	72,269	76,809	90,101	104,903	765	941	989	1,033	1,073
Wild Horses & Burros[2]	(6,051)	(8,760)	(9,149)	(9,365)	(10,073)	(57)	(74)	(81)	(81)	(85)
Soil, Water & Air	22,703	33,248	35,118	34,800	34,559	215	443	491	531	504
Forest Management	8,346	11,891	12,814	13,366	12,843	176	206	208	215	225
Wildlife Habitat	17,942	24,594	25,851	27,533	29,417	194	268	346	353	376
Recreation & Environmental Areas										
Recreation Management	6,504	10,505	11,684	13,021	13,700	95	167	197	214	218
Visual Resources	356	615	754	775	843	30	43	50	50	54
Cultural Resources	3,448	8,205	8,645	9,385	9,930	55	67	71	86	89
Natural History	232	1,225	1,845	3,375	5,350	2	8	15	24	46
Wilderness	10,574	14,657	16,150	16,000	16,900	117	126	140	136	181
Lands & Realty Management										
Lands & Rights-of-Way	32,504	42,117	44,807	46,881	48,874	865	1,066	1,150	1,205	1,248
Land Acquisition	1,623	2,977	3,931	4,367	5,318	38	62	68	85	98
Technical Support & Administrative Services										
Cadastral Survey[3]	20,121	24,752	25,198	26,100	27,374	443	454	465	478	492
Construction & Maintenance	11,501	24,627	39,811	44,673	32,598	128	209	224	232	201
Data Management	14,672	22,669	29,295	35,760	42,111	163	274	341	375	402
Fire Management	8,383	9,775	10,524	11,008	11,560	147	172	182	192	202
Law Enforcement	1,541	2,820	3,316	3,987	4,284	22	40	53	66	79
Administrative Support Services										
Management & Administration	3,859	5,607	6,104	6,806	7,007	123	179	195	217	223
Equal Employment Opportunity	990	2,876	2,913	3,108	3,140	30	52	57	63	65
Total	326,413	474,423	516,443	575,891	592,861	5,087	6,571	7,104	7,479	7,791

[1] President's FY 1981 Budget figure.

[2] Non-add item: included in Range Management figure.

[3] 106 positions are reimbursable from other agencies.

Level 3 Funding by Program Categories

	Funding Requirements in Thousands (000) of 1980 Dollars					Personnel Requirements Full-Time Permanent Positions				
FY	1981[1]	1982	1983	1984	1985	1981	1982	1983	1984	1985
Planning and Inventory Coordination	14,172	16,145	17,564	20,906	19,724	327	360	368	377	387
Energy & Minerals										
Onshore Energy-Coal	27,617	29,545	29,892	30,692	31,323	378	429	429	429	429
Onshore Energy-Other	16,541	18,359	18,430	20,776	23,843	336	333	330	365	395
Offshore Energy	48,294	54,478	54,892	54,976	55,069	243	274	279	279	280
Non-energy (Onshore)	8,632	10,000	10,920	11,329	13,264	192	198	218	230	256
Non-energy (Offshore)	132	186	189	192	194	3	3	3	3	3
Renewable Resources										
Range Management	45,726	64,863	76,306	82,751	98,095	765	861	931	983	1,007
Wild Horses & Burros[2]	(6,051)	(7,059)	(7,502)	(7,613)	(8,076)	(57)	(57)	(71)	(71)	(75)
Soil, Water & Air	22,703	29,033	33,863	34,752	34,861	215	378	379	389	392
Forest Management	8,346	9,479	9,768	9,875	9,882	176	177	187	205	212
Wildlife Habitat	17,942	22,278	24,612	27,001	29,883	194	254	295	314	342
Recreation & Environmental Areas										
Recreation Management	6,504	8,115	9,447	10,796	12,171	95	141	160	165	172
Visual Resources	356	510	620	630	650	30	34	40	42	43
Cultural Resources	3,448	4,522	6,370	6,960	7,930	55	57	65	67	78
Natural History	232	1,120	1,450	2,250	3,200	2	2	3	5	10
Wilderness	10,574	12,370	13,641	11,728	12,511	117	120	125	106	112
Lands & Realty Management										
Lands & Rights-of-Way	32,504	38,283	40,730	43,649	45,603	865	953	1,027	1,104	1,142
Land Acquisition	1,623	2,185	2,292	2,399	2,492	38	59	61	63	65
Technical Support & Administrative Services										
Cadastral Survey[3]	20,121	23,200	24,215	25,117	25,403	443	443	443	453	453
Construction & Maintenance	11,501	17,832	18,425	19,018	19,525	128	168	165	174	176
Data Management	14,672	21,615	22,562	23,401	23,667	163	243	253	263	274
Fire Management	8,383	9,454	10,043	10,628	10,873	147	157	164	172	177
Law Enforcement	1,541	1,838	1,902	1,975	2,024	22	28	30	32	33
Administrative Support Services										
Management & Administration	3,859	4,762	5,154	5,440	5,804	123	153	164	174	185
Equal Employment Opportunity	990	2,789	2,832	3,030	3,076	30	50	55	61	63
Total	326,413	402,961	436,119	460,271	491,067	5,087	5,875	6,174	6,455	6,686

[1] President's FY 1981 Budget figure.

[2] Non-add item: included in Range Management figure.

[3] 106 positions are reimbursable from other agencies.